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☆3185



3321 - Grand Rapids - June 22  
3322 " " " " 25  
3323 " " " " 26  
3324 " " " " 27

Panama continued



3694. *Milleria quinqueflora* L. Compositae

3695 Compositae

3696. *Cayaponia paepfegii* Cogn. Cucurbitaceae

3697 *Conostegia speciosa* Naud Melastomataceae

3698. *Cratogeomys* Euphorbiaceae

3699. *Psychotria hebeclada* D.C. ? Rubiaceae

3700. *Bunchosia cornifolia* HBK. Malpighiaceae

3701 ~~*Suriana*~~ Cucurbitaceae  
*Anguria warszewiczii* Hook. f.

June 25<sup>th</sup> 1911.

Yamame

Around Gamboa along roads. A weed  $\pm$  1m. high, rays golden yellow, about 3 on one side.

Around Gamboa, a weed in waste places.

Around Gamboa. A vine, climbing on bushes.  $\sigma$  fl. rather large, yellowish white, axillary.  $\phi$  fl. small, same color, in racemes.

Around Gamboa in bushes. A shrub. Calyx hairy & purple externally. Corolla pale pink, rotacea.

Around Gamboa, in bush. A small tree, with several stems from base. 3-5m. high.

Around Gamboa, a low, suffrutescent shrub. Fl. white.

Around Gamboa, a shrub or small tree. Fl. rather small, yellow. Fr. woody, apiculate, yellow at maturity.

Around Gamboa, a vine with red flowers.



3702. *Cornutia grandifolia* (L.f.) Schauer Verbenaceae

3703. *Godmania macrocarpa* Hemsl. Bignoniaceae

3704. *Cupania cinerea* Poepp. Sapindaceae

3705. *Smilax* Smilacaceae

3706. *Banisteria Kuntzei* Small Malpighiaceae

3707. *Alibertia edulis* A. Rich. Rubiaceae

3708. *Cordia sericicalyx* A. Dc. Boraginaceae

3709. *Piper fatioanum* C. Dc. Piperaceae

June 25<sup>th</sup> 1911

Around Gamboa. A shrub or small tree, with purple blue fl. in pyramidal racemes.

Around Gamboa. A small tree, 6-8<sup>m</sup> high. Fl. yellow, with brown lines inside.

Around Gamboa. A small tree, 6-8<sup>m</sup> high. Fl. white, in dense bunches, few opening at a time.

Around Gamboa, climbing on trees, Fl. greenish

Around Gamboa, a vine, climbing on trees. Fl. golden yellow.

Around Gamboa, a shrub or a small tree. Fl. white, stellate.

Around Gamboa, a small tree. Fl. white

Around Gamboa. An erect shrub,  $\pm$  1.50 high.



3710. *Psychotria hebeclada* J.C.

Rubiaceae

3711. *Gonzalagunia panamensis* (Cav.) Schum. Rubiaceae

3712

Euphorbiaceae

3713. *Lapium*

Euphorbiaceae

3714. *Panicum geminatum* Persk.

Graminae

3715. *Cenchrus echinatus* L.

Graminae

3716. *Cenchrus viridis* Spreng.

Graminae

3717. *Dactyloctenium aegyptium* (L.) Richt. Graminae

June 25, 1911

Around Gamboa. A suffrutescent shrub, 0.50-1.50 high. Fl. pink, or pinkish white. An = 3699?

Around Gamboa. A shrub. Fl. white

Around Gamboa. Herbaceous, urticant. Fl. white.

June 27, 1911

Around Empire, in flooded ditches.

Around Empire, in waste places. (~~Fl. white~~)

Around Empire in waste places. Styles white.

Around Empire, in waste places. 2-5 spikes.



June 27, 1911.

3718. *Panicum fasciculatum* Sw.

Graminae

Around Empire, in waste places. Spikes dark purple.

3719. *Chaetochloa imberbis* Scribn.

Graminae

Around Empire, in waste places.

3720. *Echinochloa colonum* Link.

Graminae

Around Empire, in waste places.

3721. *Chloris elegans* H. B. K.

Graminae

Around Empire, in waste places.

3722. *Paspalum paniculatum* L.

Graminae

Around Empire, in waste places.

3723. *Echinochloa colonum* Link

Graminae

Around Empire, in waste places

3724. *Paspalum virgatum* L.

Graminae

Around Empire, in damp places.

3725. *Paspalum plicatulum* Moench

Graminae

Around Empire, along roads.



June

3726. *Panicum megistum* Schult.

Graminae

3727. *Homolepis aturensis* Chase

Graminae

3728

Euphorbiaceae

3729. *Cedrela fissilis* Vell.

Cedro

Meliaceae

3730. *Astronium graveolens* Jacq.  
Guaia - Zorro3731. *Moplocium armatum* (Miq.) Pittier

Curral?

Mistecae

3732. *Sideroxylon*

Nispero

Sapotaceae

27, 1911

Around Empire, in waste, rather damp places.

Around Empire, on talus and slopes.

Around Empire, in waste places.

May 25, 1911.

Around Alhajiela. A middle sized tree with divaricate branching, short trunk and flat crown. This individual cannot be considered as typical.

Around Alhajiela. Middle sized tree, with straight trunk, smooth bark.

Around Alhajiela. No data.

Around Alhajiela. A large tree, reaching over 60m., with a straight trunk and elongate crown. Fruits the size of a "mirabelle" plum, and the same color.

3733 *Banisteria Luntzei* Small Malpighiaceae

3734 *Scleria melaleuca* Rehb.

Cyperaceae

3735

Bignoniaceae

3736 *Echites microcalyx* A. DC. Apocynaceae

3737 *Piper marginatum* Jacq.

Piperaceae

3738 *Banara guianensis* Aubl. Rhamnaceae

3739 *Tabernaemontana grandiflora* Jacq.

Apocynaceae

3740

Commelinaceae

June 29<sup>th</sup> 1911.

Cerro Gordo. A vine = n° 3706.

Cerro Gordo, in bushes.

Cerro Gordo. Climbing on bushes.

Cerro Gordo. A vine. Limb of corolla with a brownish red star in the center and sulphur yellow tips.

Cerro Gordo. A bush, 1m. - 1m. 50 high. Leaves and spikes odorous, good aromatic smelling.

Cerro Gordo. A small tree, 6-8<sup>m</sup> high, ramified almost from bottom. Fl. white.

Cerro Gordo. A shrub. Fl. deep yellow.

Cerro Gordo. A shrubby, herbaceous plant, 1-1.20 high. Stem single, straight, with flat crown at top. Fl. purple.



3741. *Anemopaegma orbiculatum* DC.

Bignoniaceae

Ancon Hospital grounds. June 30<sup>th</sup>. Col. Chas. F. Mason.3742. *Arizopus compressus* Beauv.

Graminae

July 1<sup>st</sup> 1911.

Slopes around Culobra

3743. *Panicum fasciculatum* Sw.

Graminae

Between Las Cascadas &amp; Bas Obispo, along railroad. A tall grass.

3744. *Chaetochloa amplifolia*

Graminae

Between Las Cascadas and Bas Obispo, along railroad. a tall grass.

3745. *Panicum saccharoides*

Graminae

Bas Obispo, on railroad steep talus.

3746. *Inga spectabilis* Willd

Leguminosae

Bas Obispo, along road; a tree, low branched with rounded crown.

3747. *Euphea balsamifera* C. & S.

Lythraceae

Bas Obispo, in waste places.

3748. *Anthurium lacunense* Engl.

Araceae

Around Frijoles, in inundated forest. Epiphytic.

3749. *Peperomia*

Piperaceae

3750. *Rhedia acuminata* (R. & P.) Guttiferae  
Madroño Pl. V. R.

3751

Capparidaceae

3752. *Malouetia panamensis* Harms & Muell. Arg. Apocynaceae3753. *Philodendron panamense* Krause

Araceae

3754. *Dieffenbachia Cestledtii* Schott.

Araceae

3755. *Philodendron tripartitum* (Jacq.) Schott. Araceae3756. *Prestonia macrocarpa* Kunze ApocynaceaeJuly 1<sup>st</sup> 1911.

Around Frijoles, b. Z. Epiphytic.

Around Frijoles, b. Z. in inundated forest. A pyramidal tree, with  
straight trunk, smooth gray bark and yellow <sup>verruculose</sup> fruits. Tree 10-12m. high.

Around Frijoles, in ditches. Fl. small, greenish purple.

Around Frijoles, in forest. A small, lactiferous tree. Fl. small, greenish  
white.

Around Frijoles, in forest. Epiphytic.

Around Frijoles, in inundated forest. Terrestrial.

Around Frijoles, in forest. Epiphytic.

Around Frijoles, in bushes. A vine. Flowers purplish green, with  
a yellow star at throat.



Filix

July 1<sup>st</sup> 1911.  
Around Frijoles, in bushes.

3758. *Xanthosoma helleborifolium*, Jacq. Schott.

Araceae

Around Frijoles, in bushes.

3759. *Olyra arundinacea*

Graminae

Around Frijoles, climbing on bushes.

3759<sup>b</sup>. *Peperomia rotundifolia* H.B.K. f. *subglabrifolia* E.D.B. Piperaceae3760. *Eleusine indica* Gaertn.

Graminae

Around Frijoles, along railroad.

3761. *Lyntherisma sanguinalis* Desl.

Graminae

Around Frijoles, along railroad.

3762. *Antheperora hermaphrodita* Ktze

Graminae

July 2<sup>d</sup> 1911.

Around Gamboa, in waste places.

3763. *Meibomia axillaris* (Sw.) Ktze.

Legumin.

Around Gamboa, in pastures. Fl. deep purple.

3764. *Phyllanthus*

Euphorbiaceae

Around Gamboa, along trail.

207  
3765 *Bunchosia coriifolia* HBK. Malpighiaceae

July 1<sup>st</sup> 1911.

217  
Around Gambia. A small tree. Fl. yellow. Fr. orange yellow.

3766. *Dieffenbachia Pittieri* Engl. & Krause Araceae

On trail from Gambia to Bruce.

3767 *Prestonia obovata* Staudl. Apocynaceae

On trail from Gambia to Bruce. A milky vine. Lobs of corolla yellow with purplish throat.

3768. *Heliotropium <sup>minidatum Sw.</sup> ~~parviflorum L.~~*

Boraginaceae

On trail from Gambia to Bruce. Fl. white.

3769. *Meibomia adscendens* (Sw.) Ktze

Leguminosae

On trail from Gambia to Bruce. Fl. pale pink

3770. *Meibomia supina* (Sw.) Britton

Leguminosae

On trail from Gambia to Bruce. Fl. pale pink.

3771

Euphorbiaceae

On trail from Gambia to Bruce.

3772. *Physalis pubescens* L.

Solanaceae

On trail from Gambia to Bruce.



22  
3773. *Croton*

Euphorbiaceae

July 2<sup>d</sup> 1911.  
from to brues  
long trail to Gamboua. A low bush.

3774. *Xanthosoma pilosum* C. Koch.

Araceae

long trail to Gamboua from brues

3775

Euphorbiaceae

long trail to Gamboua from brues. A climbing vine, fl. green.

3776

Sterculiaceae

long trail to Gamboua from brues. Stems 1.50 to 2.50<sup>m</sup> high.  
bright yellow. hairs long, brownish. Leaves brownish hairy

3777. *Helicteres guazumaefolia* H. B. K.

Sterculiaceae

long trail to Gamboua from brues. Fl. reddish pink, geminate.

3778. *Piper reticulatum* L.

Piperaceae

long trail to Gamboua from brues. A shrub.

3779

long trail to Gamboua from brues. Stems 2-3m. high. Leaves  
lescent. Fl. pale pink.

3780. *Coix lacryma Jobi* L.

Gramineae

long trail from Gamboua to brues. Stems 2<sup>m</sup> high.

224  
3781. *Panicum zizanioides* H. B. K.

Graminae

July 2<sup>d</sup> 1911.

Along trail from Gamboa to Cruces.

3782. *Piper peltatum* L.

Piperaceae

Along trail from Gamboa to Cruces. About 50 m. high. Herbaceous or suffrutescent.

3783. *Alibertia edulis* A. Rich.

Rubiaceae

Along trail from Gamboa to Cruces. A shrub or small tree.

3784

Rubiaceae

Along trail from Gamboa to Cruces. A shrub. Corolla short, orange yellow.

3785. *Guazalagunia panamensis* (Cav.) Schum.)

Rubiaceae

Along trail between Gamboa & Cruces. A shrub. Fl. white.

3786. *Isertia haenkeana* DC.

Rubiaceae

Along trail between Gamboa and Cruces. A shrub. Calyx red, corolla long orange red.

3787. *Piper*

Piperaceae

Along trail between Gamboa and Cruces. A low shrub.

3788. *Crimo*

Vitaceae

Around Gamboa. Fl. yellow.



226  
3, 3789

*Lycoseris*

Compositae

Port Lorenzo in a ravine. E. D. Christopherson.

3, 3790. *Vochysia ferruginea* Mart  
Malagueto. Used as house timber.

Vochysiaceae

Black swamp near Lion Hill. A medium sized tree, caudex bran-  
ching, leaves slightly incurved. Racemes terminal. Fl. orange-yellow.  
Trunk straight, nude for 2/3 of its length. June 5 - E. D. Christopherson.

3, 3791. *Timbristylis diphylla* (Retz) Vahl.

Cyperaceae

Around Culebra, common in ditches. July 5<sup>th</sup> 1911.

3, 3792

July 6<sup>th</sup> 1911.

Mamei Hill, on rocks. Small, creeping shrub. Fl. white.

3, 3793

Filix

Rocky slopes at Mamei Hill.

3794. *Cleocharis geniculata* (L.) R. Br.

Cyperaceae

Mamei Hill, in ditches along railroad.

3795

Filix

Mamei Hill, on rocky slopes.

3796. *Cissampelos pareira* L.

Menispermaceae

Mamei Hill, on rocky slope along railroad.

3, 3797 - *Cnidax procumbens* L.

Compositae

3, 3798.

Compositae

3, 3799. *Alseia Cibourbon* Aubl.

Gileaceae

3, 3800. *Swartzia* <sup>*darienensis* Pittier</sup> ~~*cracea* Benth.~~

Leguminosae

3, 3801. *Xanthosoma helioborifolium* (Jacq.) Schott.

Araceae

3802. *Momisia iguanaea* (Jacq.) Rose & Handl.

Ulmaceae

3803 *Nectandra globosa* (Aubl.) Mez

Lauraceae

3804. *Urera*

Urticaceae

July 6<sup>th</sup> 1911.

Mamey Hill, on rocky, exposed slopes.

Mamey Hill, in old clearings. Herbaceous, about 1m. 50 high, fl. white.

Mamey Hill, in second growth forest. A small tree, ramified almost from base in several stems. Fl. yellow.

Mamey Hill, on rocky, wooded slopes. A small, spreading tree. Fl. pale yellow.

Mamey Hill, in shady, Heliconia covered ground. Leaves tortuous below.

Mamey Hill, on rocky, basalt capped top of hill. A very woody shrub.

Mamey Hill. A small tree, with straight trunk, and flowering abundantly.

Mamey Hill, on top of hills. A small tree, bracts not included in greenish yellow (not red) involucre.



30

3 3805. *Peperomia mameiana* C. DC.

Piperaceae

Mamei Hill, on rocky ledge.

3 3806. *Peperomia cordulata* C. DC.

Piperaceae

Mamei Hill

Mamei Hill, on rocky tops.

3 3807. *Labatia standleyana* Pittier Sapotaceae?

Mamei Hill, on highest slopes. A small tree. Sep. 4, 2 ext. hairy or velvety & brownish without, 2 int. yellowish white, smooth, petaloid. Corolla

tubulose, 4-lobed; St. 4, opposed to cor.-lobes, connate at base, almost as long as cor.; fil. long & thick, anther ovate, small; Ovary inf. 4-ovulate, style straight, 4-lobulate, surrounded at base with a crown of hairs.

3 3808. *Oldenlandia corymbosa* L.

Rubiaceae.

Mamei Hill, around railroad. Fl. white.

3 3809 *Zanthoxylum*

Rutaceae

Mamei Hill, near highest tops. A tree, 10-15 m. high, 30 cm. diam.

Acabú; barbasco (Pto Obaldia y Bolívar) en donde echan pedazos de la corteza en pozos, para entumecer y prender el pescado.

Trunk straight, provided at base with conical spines, hollow and ants bearing.

3 3810. *Capsicum baccatum* L.

Solanaceae

Mamei Hill, in old clearings. Fl. white

3 3811. *Piper reticulatum* L.

Piperaceae

Mamei Hill, near base of hill, a shrub or treelet, 2-3 m. high.

3 3812. *Piper tiliaefolium paulowniaefolium* C. DC.

Piperaceae

Mamei Hill, near base of hill. Shrub or treelet.

31

July 6<sup>th</sup> 1911.

33

- 3 3813. *Cynodon / Capriola dactylon* O.K. Graminae Mamei Hill, along railroad. Common everywhere
- 3 3814. *Phaseolus aureus* Roxb. Leguminosae Mamei Hill, along railroad.
- 3 3815. *Chrysophyllum lanifolium* L. Sapotaceae Around Tabernilla, a tree.
- 3 3816. *Stachytarpheta cayennensis* (Rich.) Vahl Verbenaceae Around Tabernilla, in waste places. Fl. lilac purple, small.
- 3 3817. *Cochlospermum siliquosum* L. Ciliaceae Around Tabernilla, in waste places. A low shrub, 30-40 cm high. Fl. yellow.
- 3 3818. *Lida carpinifolia* L. Malvaceae Around Tabernilla, in waste places.
- 3 3819. *Lida carpinifolia* L. Malvaceae Around Tabernilla, in waste places.
- 3 3820. *Anguria warszewiczii* Hook. f. Cucurbitaceae Around Tabernilla, in bushes. Slender vine. Fl. brick red, caducous.



3 3821. *Lanthosoma helleborifolium* Jacq. / Schott. Araceae

3 3822. *Pentagmia pubescens* (Haxolley) Rutaceae

3 3823. *Cecropia longepedunculata* Pittier Moraceae  
3823?

3 3824. *Panicum trichanthum* Gramineae

3 3825. *Cecropia longepedunculata* Pittier Moraceae  
3825?

3 3826. *Cecropia mexicana macrostachya* Donn. Smith Moraceae

3 3827. Filicinae

3 3828. *Piper* Piperaceae

July 6<sup>th</sup> 1911.

Around Tabernilla, in grassy places.

Around Tabernilla, in forest. A treelet, 3-4m. high.

Around Tabernilla. A small tree. Leaves, palmate-lobate, 9 lobes.  
Peduncles short, hairy. Spikes very numerous, pale yellow, slender.

Around Tabernilla, along railroad.

Around Tabernilla. A small tree. Leaves palmate-lobate, 9 lobes.  
Peduncles very long; <sup>urticant</sup> bearing few (6) spikes, rather thick.

Around Tabernilla. A small tree. Leaves divided almost to base, 13 lobate. Costa reddish as are pubescent petioles. Peduncles (2 at each axil) rough in surface, short, bearing two spikes.

Around Tabernilla, on bushy slopes.

Around Tabernilla, in bushes. Shrub, about 1.50 high.

July 6<sup>th</sup> 1911.

375

3829. *Diphidum caeruleum* Nutt.

Haemodraceae Around Catemilla.

3830.

Fungi

Mamei Hill, on *Heliconia* debris, on the ground. Delicate pink.

3831.

Fungi

Mamei Hill, on rotten trees debris. Orange red.

3832.

Fungi

Mamei Hill, on petiole of leaf belonging probably to *Rubiaceae*.

July 8-10, 1911

3833

Euphorbiaceae

Nombre de Dios, a common weed on sandy beach.

n.v. *Chico*

3834. *Amerimum Brownei* Sw.

Leguminosae

Nombre de Dios; a shrubby vine on strand. Fl. white.

(*Dalbergia Amerimum* Benth.).

3835. *Ipomoea*

Convolvulaceae

Nombre de Dios; milky vine, climbing on bushes; common in the Pato' valley. Fl. deep carmine.

*Rivera campanulata* (L.) House

3836

*Vara flanca*

Nombre de Dios, in bushes; a small tree. Fl. yellowish white.



38

3837

Nombre de bios, common on sandy alluvial ground. Fl. white

39

Craceae

Nombre de Dios, on marshy alluvial flats. Pl. 1<sup>m</sup> high.

Павриджияси

Nombre de Bois, au rivier plats; a spreading tuclst. Fl. yellow. Fr.  
rather small; <sup>red</sup> leaves scarcely glaucous below.

NBK, Malpighiana

Nombre de Dios, on river flats and up the Fato' Valley. A small spreading tree. Fl. glaucous (whitish) below, fl. yellow, fr. red, rather large, ovoid, spiculate.

*Nombre de Dios, epiphytic. Spathe white, with purple upper third.*

Nombre de bois, at foot of hills; a small tree, 2-3<sup>m</sup> high.

Gesneriaceae

In forest back of Montre de Dios, in epiphytic vine. Fl. large, green,  
yellow at base, dark purple at tips.

Piperaceae

The forest back of Nombre de Dios, a treelet, 2.50-3m. high.

July 8-10, 1911.

41

3845 *Piper*

*Piperaceae*

In hills back of Nombre de Dios. A shrub.

3846 *Componeura castaneensis* Urb.

In hills back of Nombre de Dios. A small, symmetrical tree, 2.5 to 3 m. high.

3847 *Dieffenbachia Verstedtii* Schott.

*Araceae*

In shady vale on hills back of Nombre de Dios. Petioles and peduncles marbled with deep green on yellowish back ground.

3848

Bitungo (Pato); bijaquillo (Obaldia).

*Zingiberaceae*

On shady slopes back of Nombre de Dios; bracts & perianths brick red. Plant 1.5-2 m. high.

3849

On shady wooded slopes back of Nombre de Dios. A small tree, 3-5 m. high. Fl. small, yellow.

3850 *Calyptracarya glomerulata* (Brongn.)

*Cyperaceae*

On shady slopes back of Nombre de Dios.

3851 *Clidemia petiolata* (Rich.) DC.

*Melastomataceae*

On shady, wooded slopes, back of Nombre de Dios. Corolla greenish yellow.

3852 *Clidemia dentata* Don

*Melastomataceae*

On shady, wooded slopes, back of Nombre de Dios. Corolla white.



July 8-10, 1911

3853.

Euphorbiaceae

Hilly forests back of Nombre de Dios. Fl. yellow. A treelet 3-4" high.

3854 *Casaria javitensis* NBK.

Hilly forests back of Nombre de Dios. A small tree, 8-12m. high, 25<sup>30</sup>cm. diam., elongate. Fl. white.

3855. ~~Enomita~~ *Rudgea caribaea* Benth. Rubiaceae

Hojá de frasco. The erect, slender stems, are used in house building.

Hilly forests back of Nombre de Dios. A treelet, 3-4" high. Trunk straight.

3856. *Sorocea affinis* Hemsl.

Moraceae

Hilly forests back of Nombre de Dios. A treelet 3-4m. high. Racemes congested, hanging, golden yellow. ♂ only. Perianth divisions 4; Stamens 4, opposed to perianth divisions. Fl. pedicellate.

3857. *Gustavia parvifolia* Pittier.

Bejico de Luca, although no vine at all.

Lythridaceae

Hilly forests back of Nombre de Dios. A medium sized tree, 12-15m. high, 25cm. diam. Fl. large, yellowish white.

3858. *Pentagmia gymnopoda* Standley

Rubiaceae

Hilly forests back of Nombre de Dios. A shrub, 2-2.50 high.

3859. *Ipomoea pes caprae*

Convolvulaceae

Sandy places air and around Nombre de Dios.

3860. *Crotalaria retusa* L.

Leguminosae

Sandy waste places around Nombre de Dios. Fl. yellow & brownish purple.

July 8-10, 1911.

44

3861. *Melampodium divaricatum* (Rich.) D.C.

Compositae

Climbing on bushes around Nombre de Dios. Fl. orange-yellow.

3862. *Piper*

Piperaceae

Alluvial flats around Nombre de Dios. A shrub.

3863

Fungus

On *Bunchosia*, around Nombre de Dios. Forms yellow spots on leaves.

3864

Aracea

Around Nombre de Dios. Epiphytic.

3865

Melon jamaicano

Cucurbitaceae

Along Rio Fato, above Nombre de Dios. A vine, trailing on bushes.

Fruits ovoid, orange yellow. Placentas 3, orange red, sweetish. Alcoholic  
materiales.

3866. *Dalechampia*

Euphorbiaceae

Along Rio Fato, above Nombre de Dios. A vine, climbing on bushes.

3867. *Philodendron Wendlandii* Schott.

Aracea

Along Rio Fato, above Nombre de Dios; a beautiful epiphytic plant

Leaves thick, dark green above, pale green beneath, acuminate, ovate-lanceolate, auricu-  
late at base. Petiole thick, winged,  $\pm 9$  cm. long, lamina 3 cm. long, 13 cm. broad. Spathe yellowish  
green, with purple-circled, brownish dots, spathe on outer face, 14-16 cm. long,  $\pm 11$  cm. broad  
when flat, acuminate. ♀ part of spadix brownish,  $\pm 4$  cm. long. ♂ part yellow, claviform, 8.5 cm. long.

3868 *Cayaponia Poeppigii* Cogn.  
Bejuco coco

Cucurbitaceae

Along Rio Fato, above Nombre de Dios; A vine, ♂ fl. large, white inside.



46  
3869. *Hirtella triandra* Sw.  
Gamapata; fr. edible

3870  
Tarino; seeds used as a vomitive.

3871. *Alseodaphne Pittieri* Safford.  
Yalla; a very soft wood, used for building purposes

3872. *Piper reticulatum* L.

3873 *Nectandra globosa* (Aubl.) Mez.  
Ligua negro

3874  
Bejico de chamico

3875. *Cupania cinerea* Poepp.  
Galacia

3876. *Vismia guianensis* (Aubl.) Pers.  
Sagrillo

Rosaceae

Annonaceae

Piperaceae

Dilleniaceae

Sapindaceae

Myrtaceae

47  
Along Rio Fato', above Nombre de Dios. A small tree <sup>1</sup>flat crowned, with pinkish white flowers and fruits about the size of a nutmeg. Fl. black green outside.

Along Rio Fato', above Nombre de Dios. A small tree. Fruits the size and appearance of a green mango

Along Rio Fato', above Nombre de Dios. A medium sized, pyramidal and regularly shaped tree. Fl. greenish.

Along Rio Fato', above Nombre de Dios. A shrub, about 2' high.

Along Rio Fato', above Nombre de Dios. A medium sized tree.

Along Rio Fato', above Nombre de Dios; a vine, climbing high in trees. fl. white?

Along Rio Fato', above Nombre de Dios. A medium sized tree. Fl. white.

Along Rio Fato', above Nombre de Dios. A treelet, 3' high.

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- 3877 *Mendoncia costaricana* (Vries) Bignoniaceae Along Rio Fato, above Nombre de Dios. A vine. Fl. white with dark purple spots at corolla throat.
- 3878 *Cissus* Vitaceae Along Rio Fato, above Nombre de Dios. A vine, trailing on bushes; fl. greenish or pale yellow.
- 3879 *Lonchocarpus lucidus* Pittier Leguminosae Along Rio Fato, above Nombre de Dios. A large tree.  
Lute cueros (Pentaclethra has same name)
- 3880 *Ficus glabrata* H.B.K. Moraceae Along Rio Fato, above Nombre de Dios. A large tree.  
Higueron
- 3881 *Piper linearifolium* C. DC. Piperaceae Along Rio Fato, above Nombre de Dios, in gravel. A low, bushy shrub.  
Gusanillo blanco
- 3882 *Piper reticulatum* L. Piperaceae Along Rio Fato, above Nombre de Dios. A treelet.  
Gusanillo negro
- 3883 *Conostegia xalapensis* (Baup.) Melastomataceae Along Rio Fato, above Nombre de Dios. A treelet. Corolla pink.  
Zuciravangue Dan
- 3884 *Hippocratea volubilis* L. Combretaceae Along Rio Fato, above Nombre de Dios. A vine, climbing on high trees, but flowering low. Fl. yellowish white.  
Bejuco de uña



July 8-10, 1911.

3885. *Selaginella*

*Selaginellaceae*

Along Rio Fato, above Nombre de Dios,

3886. *Paullinia funicularis* Radlk. sp. n.

*Sapindaceae*

Along Rio Fato, above Nombre de Dios. A vine, cauliflorous. Fl. white.

3887. *Stigmaphyllon puberulum*  
Nees

*Malpighiaceae*

Along Rio Fato, above Nombre de Dios. A vine. Petals yellow at base, brownish purple at tips.

3888. *Peperomia*

*Piperaceae*

Along Rio Fato, above Nombre de Dios

*Peperomia geniculata* in the forest of Rio Fato

3889. *Casearia panamensis* Standley

*Rubiaceae*

Along Rio Fato, above Nombre de Dios. A small tree. Fl. white.

3890

*Gesneraceae*

Along Rio Fato, above Nombre de Dios. Epiphytic.

3891. *Peperomia oblongibacca* C. DC.

*Piperaceae*

Along Rio Fato, above Nombre de Dios. Epiphytic.

3892. *Coussapea panamensis* Pittier

*Moraceae*

Along Rio Fato, above Nombre de Dios. A tree

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52  
3893. *Ficus panamensis* Standley

Moraceae

Along Rio Fato, above Numbre de Dios. Epiphytic

3894. *Costus*

Zingiberaceae

Along Rio Fato, above Numbre de Dios. Fl. dark reddish purple.

3895. *Petreaea volubilis*

Verbenaceae

Along Rio Fato, above Numbre de Dios. A viny shrub.

3896

Filicinae

Along Rio Fato, above Numbre de Dios. Epiphytic

3897. *Cytharexylum macranthum* Pittier sp. nov.

Verbenaceae?

Along Rio Fato, above Numbre de Dios. A subepiphytic shrub (1/2).  
Note gland at base of lamina. Fl. white.

3898. *Adenocalymna flos-Ardeae* Pittier  
Bejuco de garza

Bigoniaceae

Along Rio Fato, above Numbre de Dios. A vine. Fl. white.

3899

Urticaceae

Along Rio Fato, above Numbre de Dios. A shrub.

3900. *Ruellia Pittieri* Lindau

Scrophulariaceae

Along Rio Fato, above Numbre de Dios.



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3901

Myrtaceae

Along Rio Fato, above Nombre de Dios. A small tree, with numerous white flowers; very ornamental.

3902. *Peperomia fatoana* C. DC.

Piperaceae

Along Rio Fato, above Nombre de Dios. Epiphytic

3903. *Weberocereus Pittieri* Rose, n. sp.

Cactaceae

Along Rio Fato, above Nombre de Dios. Epiphytic. Stems triangular, with edges indented at short intervals (2-3 cm). Fl. + fr. long, sessile. Calyx yellowish white; corolla white. Stigma yellow, purple.

3904

Filices

Along Rio Fato, above Nombre de Dios. Tree Fern, growing on shady, steep bank of river, 2 m. high.

3905. *Oncidium pusillum* Rehb. fil.

Orchidaceae

Along Rio Fato, above Nombre de Dios. Epiphytic. Fl. yellow.

3906

Filices

Along Rio Fato, above Nombre de Dios. Epiphytic.

3907. *Cayaponia coriacea* Cogn. CucurbitaceaeAlong Rio Fato, above Nombre de Dios. A vine, climbing <sup>high</sup> on trees.3908. *Ficus panamensis* Standley

Moraceae

Along Rio Fato, above Nombre de Dios. Epiphytic on high Sloanea

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3909. *Piper auritum* H. B. K.

Piperaceae

Along Rio Fato, above Nombre de Dios. A small tree. Odoriferous.

3910. *Andira sapindoides* Benth.

Leguminosae

Along Rio Fato, above Nombre de Dios. A large tree in light forest of alluvial flats.

3911. *Phthirusa Pittieri* Krause sp. nov.

Loranthaceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*. Fl. yellow.

3912

Polypodiaceae

Along Rio Fato, above Nombre de Dios. A low, suffrutescent shrub. Fl. yellowish or brownish, caducous.

3913

Polypodiaceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*. Bracts dark red.

3914. *Peperomia guadalupensis* C. D. C.

Piperaceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*.

3915

Anonaceae

Along Rio Fato, above Nombre de Dios. Habit and size of *Eugenia*.

Yalla.

3916. *Anthurium*

Araceae

Along Rio Fato, above Nombre de Dios. Epiphytic on *Hoanea*. Seeds and spathe orange red.



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3917. *Inga Ruiziana* Don

Leguminosae

Along Rio Pato, above Nombre de Dios. A medium sized tree.

3918. *Kolobochilus leiorhachis* Lindau

Ucunthaceae

Along Rio Pato, above Nombre de Dios. Flowers bright red.

3919. *Hydrangea* <sup>*panamensis* Standl. Type</sup>  
*peruviana* Moric. SaxifragaceaeAlong Rio Pato, above Nombre de Dios. A few large, yellow corolla. The dark purple buds = floral buds and then calyx purple? Epiphytic on *Sloanea*3920. *Sloanea megaphylla* Pittier

Elaeocarpaceae

Mameicillo Colorado, much used in balm in dock structure

Along Rio Pato, above Nombre de Dios. A tree with flat buttresses, about 40 cm. diam, 25 m. high.

3921. *Alibertia edulis* A. Rich.

Rubiaceae

Between Nombre de Dios &amp; Playa Santa, along beach. Fl. white

3922. *Randia aculeata* L.

Rubiaceae

Between Nombre de Dios &amp; Playa Santa, along beach. Fl. white. Fr. green?

3923. *Piper*

Piperaceae

Between Nombre de Dios &amp; Playa Santa, along beach. A low bush.

3924. *Thevetia nitida* (H. & A.) DC. Apocynaceae

Between Nombre de Dios &amp; Playa Santa, along beach. Fl. pale yellow.

3925. *Brassavola venosa* Lindl.

Orchidaceae

Between Nombre de Dios & Playa Dama, along beach. Fl. white.

3926. *Wedelia trilobata* (L.) Hitchc. ~~Compitae~~ Compositae

Between Nombre de Dios & Playa Dama, along beach. Gregarious, trailing.

3927. *Smilax*

Between Nombre de Dios & Playa Dama, along beach. A thorny, climbing vine. Fl. greenish.

3928. *Morinda Roioi* L.

Rubiaceae

Between Nombre de Dios & Playa Dama, along beach. A vine, with concrescent calyx and pinkish flowers.

3929. *Myginda eucymosa* Less. & Pitt.

Between Nombre de Dios & Playa Dama along beach. A treelet.

3930. *Piper elongatum* Vahl.

Piperaceae

Between Nombre de Dios & Playa Dama, along beach. A treelet, about 3<sup>m</sup> high.

3931. *Hamelia axillaris* Sw.

Rubiaceae

Between Nombre de Dios & Playa Dama, along beach

3932. *Cordia heterophylla* Roem. & Sch.

Boraginaceae

Between Nombre de Dios & Playa Dama, along beach. A tree, 7-8<sup>m</sup> high, dividing from near to base. Fl. white.



62

3933. *Piper auritum* H. B. K.

Piperaceae

3934. *Piper marginatum* Jacq.

Piperaceae

3935. *Piper faloanum* C. DC.

Piperaceae

3936. *Psychotria undata* Jacq.

Rubiaceae

3937. *Chiococca alba* (L.) Hitchc.

Rubiaceae

3938. *Caesalpinia Bonducella* Rob.

Leguminosae

Leguminosae

Calentura (N. de D.); mata en P<sup>to</sup> Obaldia en donde la infusión se usa para curar la inflamación de los ojos.3939. *Hibiscus tiliaceus* ( *Parvium tiliaceum* (L.) Pers.) Malvaceae  
Majagua de playa (Nombre de Dios, Obaldia)3940. *Catenaemontana grandiflora* Jacq.

Apocynaceae

July 8-10, 1911.

63

Between Nombre de Dios y Playa Damas, along beach. A gregarious treelet, single stemmed, flat crowned, odoriferous.

Between Nombre de Dios &amp; Playa Damas, along beach. A treelet.

Between Nombre de Dios &amp; Playa Damas, along beach. A low treelet.

Between Nombre de Dios &amp; Playa Damas, along beach. A low bush. Fl. white.

Between Nombre de Dios &amp; Playa Damas, along beach. A vine. Fl. corolla pinkish white.

Between Nombre de Dios &amp; Playa Damas along beach. A climbing vine, with long raceme of yellow flowers.

Between Nombre de Dios &amp; Playa Damas, along beach. Fl. yellow.

Between Nombre de Dios &amp; Playa Damas, along beach. A small tree. Fl. large, white.

64  
3941. *Cordia nitida* Vahl.

Borraginaceae

July 8-10, 1941

65  
Between Nombre de Dios & Playa Damas. A tree with rounded crown.  
Fl. white, odorless.

3942. *Lytharexylum caudatum* L.

Verbenaceae

Between Nombre de Dios & Playa Damas, along beach. A shrub. Fl.  
white

3943

Mangle negro

Between Nombre de Dios & Playa Damas, along beach, in mangrove for-  
mation, next to water. Fl. yellow.

3944. *Chloris petraea* Sw.

Graminae

Between Nombre de Dios & Playa Damas, along beach.

3945. *Laguncularia racemosa* Gaertn.  
Mangle blanco

Verbenaceae

Between Nombre de Dios & Playa Damas, in mangrove bush,  
farthest from water.

3946. *Croton*

Liliaceae

Between Nombre de Dios & Playa Damas, along beach. Fl. white.

3947

Cactaceae

Along Rio de Fato, above Nombre de Dios. Epiphytic.

3948.

Fungus

Along Rio de Fato, above Nombre de Dios. In old rotten wood. May  
like a flower.



3949. *Protium copal* Engler

Burseraceae

Along Rio de Fato, above Nombre de Dios. A small tree.

3950. *Commersonia bartramia* Leguminosae  
n.v. Almendro. Pitier (Type)

Botila Mos. between Mamei & San Pablo. A very large tree, 50' high, with rounded crown. Seen also in Fato Valley - July 12<sup>th</sup> 1911 - E. C.

3951. *Caryota*

Palmae

July 13<sup>th</sup>, 1911  
Hospital Grounds at Ancon. ♂ fl. only, in alcohol. Fl. extraordinarily numerous, forming a 10cm. thick layer at foot of palm. Bk or specimens of the latter seem to be wanting (no, see nearer!).

3952. *Genipa carato* H. B. K.

Rubiaceae

Hospital Grounds at Ancon. A small tree. Fl. white, turning yellow at later stages.

3953. *Ficus glabrata* H. B. K.

Moraceae

Hospital Grounds at Ancon. A large tree, very ornamental, reaching often 30-40m.

3954. *Philo*

Araceae

Hospital Grounds at Ancon. Epiphytic. 1 Kolben in alcohol, 2 tubes.

3955

Anonaceae

Hospital Grounds at Ancon. A tree with short trunk and flat crown. Fr. large, ± spherical, 12cm. long, 11cm. diam. Scales <sup>pseudo</sup>crinal. Peduncles 18-20cm. long, 1cm. diam, ending with 1 fr. and 1 branchlet. Ped. 1.5cm. long.

~~3956~~

July 13<sup>th</sup> 1911.

3956. *Cyperus rotundus* L.

West Indian Nut Grass.

Cyperaceae

Hospital Grounds at Ancon. A common weed.

3957 *Osotea acutangula* (Nitz.) Mez Lauraceae

at 3. Col. Masson.

Hospital Grounds at Ancon. A small tree. Leaves have a slight cinnamon flavor and odor.

3958. *Euphorbia*

Euphorbiaceae

Hospital Grounds at Ancon. A common weed.

3959. *Eryngium foetidum* L.

Culantro

Umbelliferae

Hospital Grounds at Ancon. In damp, rather indifferent places.

3960.

Col. Masson at 4.

Caprifoliaceae

Hospital Grounds at Ancon. A small tree.

3961. *Pseuderanthemum* cf. *adspersum*.

Acanthaceae

Hospital Grounds at Ancon. Cultivated. Fl. white, with purple throat.

3962. *Peperomia*

3963. *Fourcroya*

Amarillidaceae

Culebra, on <sup>hill</sup> sides; also cultivated. Alcohol mat. (2 tubes). Perianth divisions pale green. Mean length of leaf 2.7; breadth 14-16 cm.



July 17, 1911

3964

Zingiberaceae Between Miraflores & Pedro Miguel. Fl. white.

3965. *Rytidix granularis* Steud.

Graminae. Between Miraflores & Pedro Miguel, in gravelly places along road.

3966 *Imperata contracta*

Graminae  
Between Miraflores & Pedro Miguel. Common in dry, sandy places.

3967. *Andropogon bicornis* L.

Graminae Between Miraflores & Pedro Miguel. Common on dry slopes.

3968 *Solanum subverne* Jacq. Solanaceae Between Miraflores & Pedro Miguel. A <sup>thorny</sup> shrub with purple flowers.

3969. *Pithecolobium hymenaeifolium* (H. & B.) Benth. Leguminosae Between Miraflores & Pedro Miguel. A thorny shrub; fl. white

3970. *Phyllanthus*

Euphorbiaceae Pedro Miguel, on earth dam.

72  
3971 *Prioria copaifera* Gris.  
Copaiva

Leguminosae

3972

3973 *Inga spuria* Willd.

Leguminosae

3974 *Epidendrum latilabre* Lindl.

Orchidaceae

3975 *Oxypteleum panamense* Staudl.  
Asclepiadaceae

3976 *Odontadenia speciosa* Benth. Apocynaceae

3977 *Coutarea hexandra* Schum.

Rubiaceae

3978 *Clidemia neglecta* Don Melastomataceae


July 19-21

73  
Along Trinidad River. A large tree in permanently or periodically  
inundated ground.

Along Trinidad R. A vine. Fl. white or pinkish white, with broad  
spur. Hanging from trees and apparently common.

Along Trinidad R. A low tree, ramified from the base. Still alive in  
places permanently inundated.

Along Trinidad R. Epiphytic. Fl. large, greenish yellow.

Along Trinidad R. Climbing on bushes in inundated places. Fl. white  
with purple radial streaks. Fr.  conical, green, hanging, quite smooth.

Along Trinidad R. A vine, fl. <sup>rotate</sup> ~~coriaceous~~, of a beautiful <sup>deep</sup> yellow (brown  
ish at throat?). Milky.

Along Trinidad R. A treelet, 2-3 m. high. Fl. purplish white.

*Coutarea* ~~hexandra~~ *guianensis*

Along Trinidad R. on high ground near Agua Clara. Fl. white; a low  
bush.



3979 *Solanum jamaicense* Willd. Solanaceae  
Huevos de Gato.

3980 *Bellucia grossularioides* (L.) <sup>Tropica</sup> Melastomataceae

3981 *Riveria campaulata* (L.) Hauss. Convolvulaceae  
Used to wrapulate rubber

3982 *Peperomia obscurifolia* C. DC. Piperaceae

3983 *Peperomia fatoua* C. DC. Piperaceae

3984 *(Choisya) Tourateia simplex* Aubert. Leguminosae

3985 *Clidemia hirta* (L.) DC. <sup>Ma</sup> Melastomataceae

3986 *Aciotis paludosa* (Mart.) <sup>Ma</sup> Melastomataceae

July 19-21, 1911.

Around Agua Clara de Trinidad. A low bush. Fl. small, yellowish. Fruits rounded, small ( $\pm$  3mm diam.) golden orange, hairy.

Around Agua Clara de Trinidad. A small, flat-topped tree. Fl. pinkish white, large

Around Agua Clara de Trinidad. A milky vine. Fl. dark pink inside, pale outside.

Around Agua Clara de Trinidad. Epiphytic. Foliage dark green.

Around Agua Clara de Trinidad. Epiphytic. Foliage yellowish green

Around Agua Clara de Trinidad, in hills. A small, 3-4 high tree. Wood white, very hard.

Around Agua Clara de Trinidad. A shrub. Fl. white.

3978

Around Agua Clara de Trinidad. Suffrutescent. Stems winged, erect. Fl. pinkish white

July 19-21, 1911.

3987 *Miconia laevis* (Bonpl.) Naud.  
Melastomataceae

Around Agua Clara de Trinidad, on hills. A shrub. Fl. white

3988 *Daliscarpus punctatus* Standl.  
Dilleniaceae

Around Agua Clara de Trinidad. A vine.

3989 *Viomea*  
Guttiferae

Around Agua Clara de Trinidad. A small tree, 3m. high. Fl. being inside, yellowish white.

3990 *Leandra mexicana* (Naud) Cogn.  
Melastomataceae

Around Agua Clara de Trinidad. A shrub, fl. pink.

3991 *Magoba laurina* Warburg  
Flacourtiaceae

Around Agua Clara de Trinidad. A small tree.

3992 *Pentagmia macrophylla* Benth.  
Rubiaceae

Around Agua Clara de Trinidad. A treelet, with unremiped stump. Fl. yellowish white.

3993 *Psychotria brachiata* Sw.  
Rubiaceae

Around Agua Clara de Trinidad. A bushy shrub; fl. yellow.

3994 *Maripa panamensis* Hemsley  
Convolvulaceae

Around Agua Clara de Trinidad. A vine.



78  
3995

Vitaceae

July 19-21, 1911.

Around Agua Clara de Trinidad. Climbing on bushes in inundated places and conspicuous for its deep incarnate flowers.

3996

Solanaceae

Along Trinidad River, between Agua Clara & Escotal. Climbing on dry bushes in inundated places. Racemes hanging.

3997. Hibiscus bifurcatus Cav.  
Algodoncito

Malvaceae

Along Trinidad River, between Agua Clara & Escotal. A treelet, 3-4' high, growing in inundated places. Fl. very large, pink with purple streaks, very ornamental.

3998. Passiflora

Passifloraceae

Along Trinidad River, in the inundated zone, climbing on dry bushes, common. Fl. white, open early morning, closing at about 10 am.

3999 Andira farnesiana (Wright) Urb. <sup>Leguminosae?</sup>

Along Trinidad R. between Escotal and the mouth of Liri R. A small tree. Fr. ovoid, smaller but like those of n.?

4000 Hircia faginea (Sw.) Naud. <sup>Malpighiaceae</sup>

Along Trinidad R. betw. Escotal and Boca de Liri. A vine. Fl. yellow.

4001

Stylogyne laevis (Curt) Mez

Myrsinaceae

Along Trinidad R. near Lagartera. A small tree, ± 2 m. high. Rhachis pink, coral looking. Fl. white. Fr. black when ripe.

4002 Combretum punctulatum Pitt. sp. n.

Combretaceae

Along Trinidad R. near Lagartera. A thorny vine; fl. white

4003. *Macfadyena uncinata* DC.

Bignoniaceae

4004

Salicaceae

4005. *Chrysophyllum* ~~*pauciflorum*~~ *Pittier*

Sapotaceae

4006. *Heisteria*

Placaceae

4007. *Strychnos pauciflora* DC.

4008. *Glytostoma isthmicum* Pittier

Bignoniaceae

4009. *Anemopaegma punctulatum* Pittier

Bignoniaceae

4010. *Quararibea pterocalyx* Hemsl.

Sterculiaceae

July 19-21.

Along Trinidad R., near Lagartera. A vine, with hanging, <sup>81</sup>fl. ends. Corolla pale yellow, erect.

The forest near Lagartera, very abundant, strikingly erect and fern-looking.

Along Lirio R., Trinidad basin. A tree, medium sized. Corolla greenish yellow.

Along Lirio R., Trinidad basin. A shrub. Calyx red.

Along Trinidad R., below Lagartera. Fl. Hands. Ripe fr. spherical,  $\pm 4$  cm. diam.

Along Trinidad R., below Lagartera. Fl. pinkish purple; common.

Along Lirio R., just above the mouth. Fl. geminate, corolla pale yellow. Ends of vines hanging.

Along Trinidad R. at Lagartera. Fl. elongate, white. Style longer than corolla.



4011. *Paullinia bracteosa* Redd. R.

Lapindaceae

4012. *Calathea**Bijão macho.*4013. *Philodendron rigidifolium* Krause.

Araceae

4014

Filices

4015. *Philodendron*. (indet.).

Araceae

4016. *Piper peltatum* L.*Sta Maria*

Piperaceae

4017. *Drymonia spectabilis* Mart.

Gesneraceae

4018. *Hippocratea decussata* (R. & P.) Peyr.

July 19-21, 1911.

Along Trinidad R. at Lagastera. A vine; fl. white

On Siri' R., about 4 m. from the mouth. - Leaves not white below.

Woods along Siri' R. epiphytic.

Woods along Siri' R.

Woods along Siri' R. - Epiphytic. Spathe pinkish outside, red pink inside.

Clearings along Siri' R.

Woods along Siri' R. Epiphytic. Corolla large, pale brownish purple inside with darker dots, white outside.

Along Siri' R., on banks. A vine. Fl. greenish yellow (H. 3, Style 1?).

84

4019. *Swartzia panamensis* Benth.  
Cutaro.

4020. *Paspalum fasciculatum*  
Gamalote

4021

4022. *Ilex microcarpa* Nees.

4023. *Hyptis brevipes* Poit.

4024. *Anthurium acutangulum* Engl.

4025. *Cyclanthus 2-partitus* Poit.

4026. *Panicum zizanioides* H. B. K.

Leguminosae

Graminae

Juncaceae

Cyperaceae

Labiatae

Araceae

Cyclanthaceae

Graminae

July 19-21, 1911.

85

Along Trinidad & Fire River. A medium sized tree (coll. Chayres).  
Ht. ∞; petals yellow; calum large.

<sup>unwooded</sup>  
Covers banks of rivers everywhere in the low lands - Trinidad R.

Banks of Trinidad R.. An epiphytic, hanging vine. Fl. white.

Clearings along Fire R.

Pastures along Fire R. Fl. white.

Forests along Fire R. Epiphytic.

Swampy clearings along R. Fire.

Clearings along Fire R.



4027. *Panicum frondescens* Mey. Gramineae

4028

4029. *Dalbergia Monetaria* L.f. Leguminosae

4030. *Salacia (Tontelea) praecoxa* Hippocrateaceae  
(Miers) Standl.?

4031. *Guettarda foliacea* Standley n. sp. Rubiaceae

4032. *Pithecolobium Vahliianum* (D.C.) Benth. Leguminosae  
Totacaballo

4033. *Coumarouna panamensis* Pittier sp. n. Leguminosae  
Almendro. Bean said to be edible. Wood very hard.

4034. *Torocea affinis* Hemsley. Moraceae

July 19-21, 1911.

Clearings along Liri' R.

Along R. Liri'. Common. A small tree. Fl. yellow; petals caducous.

Along R. Liri'. A small tree.

Along R. Trinidad, near Lagatero. A tree. Fl. small, yellow.

Along R. Trinidad near Lagatero. A small tree, divided from the  
base, <sup>with</sup> thorny, arcuate stems. Fl. white.

Along Trinidad R., above Escobal. Fl. white or slightly pinkish.

On hills and high ground along Trinidad R. Fl. pink.

Along Trinidad R., in woods. ♀ fl. only.

38  
4035 *Paullinia pinnata* L.

Leguminosae

July 19-21, 1911.

Along Trinidad R., a vine. Fl. white.

4036

Filices

Along Trinidad R., near Escobal. Epiphytic

4037 *Weberocereus panamensis* Rose, n. sp. Cactaceae

Along Trinidad R. - Epiphytic. Stems almost cylindrical. Calyx pale yellow; corolla pinkish white. Fruit almost spherical, pink.

4038 *Cayaponia poeppigii* Cogn. Cucurbitaceae

Along Trinidad R. A vine. Fl. yellowish, very hairy inside.

4039 *Iertia haenkeana* DC.

Rubiaceae

Agua Clara, in bushes on hills; rather common. Fl. orange yellow.

4040 *Cayaponia poeppigii* Cogn. Cucurbitaceae

July 23, 1911

Quatro Calles Hills, facing Matashin, on R.R. talus.

Alcohol Mat. & Herb.

4041

Filices

Quatro Calles Hills, facing Matashin, in old clearings.

4042

Filices

Quatro Calles Hills, facing Matashin, in old clearings.



30  
4043. *Jasminum*

Onagraceae

July 23<sup>d</sup> 1911.

81  
Cuatro Calles Hills, facing Matachin, in swampy ground. Fl. small, yellow.

4044

Filices

Cuatro Calles Hills, facing Matachin, on decayed old cleanings.

4045

Filices

Cuatro Calles Hills, facing Matachin, in shady woods.

4046

Marantaceae

Cuatro Calles Hills, facing Matachin, in shady wood. Floral stalk coming straight from rhizome. Plant 1.20 high. Fl. head rounded, fl. yellowish white.

4047

Rubiaceae

Cuatro Calles Hills, facing Matachin. A shrub. Fl. yellow.

4048

Solanaceae

Cuatro Calles Hills, facing Matachin. A shrub or small tree, 2-3 m. high. Fl. small. Petals white.

4049 *Desmodium diversifolium* (Naud.) Cogn. *Meibomia*

Cuatro Calles Hills, facing Matachin. A shrub. Fl. pink.

4050

Marantaceae

Cuatro Calles Hills, facing Matachin. Floral stems with 3-4 nodes, each with a leaf. Radical leaves bristly. Plant 1.20 high. Floral head elliptic. Fl. yellowish white.

Collected Mat. 1 small tree.

92  
4051. *Cortus*

Marantaceae

4052

Filices

4053

Filices

4054. *Hibiscus spathulatus* Garke.

Malvaceae

4055. *Casnia reticulata* L.

Leguminosae

4056. *Cecropia arachnoidea* Pithier sp. n.

Moraceae

4057. *Cecropia mexicana macrostachya* Donn. Smith Moraceae

4058. *Lapum*

July 23<sup>d</sup> 1911.

93

Cuatro Calles Hills, facing Matachin, in shady gorge. Pl. helicoid  
growing,  $\pm$  50-60m. high. Fl. dark red.

Cuatro Calles Hills, facing Matachin, on stones.

Cuatro Calles Hills, facing Matachin, on trunks.

Cuatro Calles Hills, facing Matachin, in bushes along R.R. track.  
Fl. purplish pink. Plant, 1<sup>m</sup> 50-2m. high.

Cuatro Calles Hills, facing Matachin, in waste places. Shells 1/8 in.

Cuatro Calles Hills, facing Matachin, along R.R. - 7 spikes. Leaves  
10 lobed. - 1/2 in. wide 1 inch

Cuatro Calles Hills, facing Matachin, along R.R. - Leaves 14 lobed. 7  
only. - 1/2 in. wide 1 inch

Gamboua

Pl. Mat. 1 inch, dry seed 1 inch



July 26<sup>th</sup> 1911.

95

4059. *Guaiacum officinale* L.

Zygophyllaceae

Santa Ana Park, in Panama City. A small tree, trunk erect, crown more or less pyramidal. Fl. azure-blue.

4060. *Cecropia arachnoidea* Pittier sp. n.

Moraceae

Culebra, along the railroad to Panama. Small tree, 5-6 m. high, with only primary ramifications - ♂ aments.

*Alchornea*, 1 m. - 1.5 m. high.

4061.

Marantaceae

Culebra, along a creek. Floral stalk fully foliated (4-5 leaves), 60-80 cm. high. Fl. head ovoid. Fl. purple. (white at base).

*Alchornea* at 1 m. high.

4062. *Heliconia*

Musaceae

Culebra, along creeks and covering vast spaces in clearings.

4063. *Pleurya aestuans*

Urticaceae

San Pablo, in waste places. Chr.

4064. *Sporobolus Jacquemontii* Kth.

Graminae

Culebra. The commonest grass on slopes and dry places.

4065. *Synedrella nodiflora* Gaertn.

Compositae

Culebra, in waste places. Fl. small, yellow.

4066. *Heliotropium indicum* L.

Borraginaceae

Culebra, in waste places. A common weed.

4067

Cruciferae

Culebra, in waste places. Introduced and not frequent.

4068. *Rehmannia*

Amaranthaceae

Culebra, common in waste places.

4069. *Laguncularia racemosa* Gärtn

Compositae

July 29<sup>th</sup> 1911.

Peña Prieta, near Panama, in mangrove bushes.

4070. *Sapium Moritzianum* Klotsch.

Euphorbiaceae

Peña Prieta, near Panama, on the beach. *Plumbeo-viridis*; trunk and limbs gray (except the young, green, sprouts); leaves narrow lanceolate, basal glands cylindrical, erect, obtuse at tip. Margin finely denticulate. <sup>capsules red</sup> ~~stipitate~~

4071. *Uniola Pittieri* Hackel.

Graminae

Peña Prieta, near Panama, along beach on "orden littoral". *Holoseris*, one single plant extending very far on one line.

4072. *Euphorbia*

Euphorbiaceae

July 31<sup>st</sup>

Culebra, along roads, procumbens.

4073 *Euphorbia*

Euphorbiaceae

Culebra, along roads

4074. *Euphorbia*

Euphorbiaceae

Culebra, along roads



4075

Zingiberaceae?

4076. *Adiantum*

Filices

4077

Yaya de mono;

4078 *Stachyarrhena heterochroma*

Rubiaceae

Calabazuelo; good timber, used in native house building

4079 *Caonabo pedunculavis* (D.C. Pittier)

Celastraceae

Manga mata-pescado; la corteza machacada se usa para meter el pescado. Squirrels &amp; birds eat seeds. Timber hard &amp; lasting.

4080. *Adiantum*

Filicinae

4081

4082 *Scica panamensis* Rose

Burseraceae

Copa; resin used to cure sores, and as incense in churches.

August 4-5, 1911.

Loma de la Gloria, N. de Dios, on shady slopes in high forest. Fl. yellow.

Loma de la Gloria, N. de Dios, in shady woods; very scarce.

Loma de la Gloria, N. de Dios. A small tree, with straight trunk and regular, pyramidal shape. Fr. yellowish white.

Loma de la Gloria, N. de Dios; small tree, <sup>8-10 m. high</sup> with straight trunk & pyramidal crown; bark grayish, smooth; fl. in long <sup>hanging</sup> spikes, opening only a few at a time; corolla purplish pink inside, pale pink outside. Fr. said to be like a little calabash.

Loma de la Gloria, N. de Dios. A small tree, 6-8 m. high, straight trunk &amp; pyramidal crown; bark verruculose.

Loma de la Gloria, N. de Dios, in shady woods.

Loma de la Gloria, N. de Dios. Saprophytic; aphyllous; stems white; fl. pale blue.

Loma de la Gloria, N. de Dios. A mid-sized tree, with smooth, grayish bark, and irregular branching.

4083. *Piper villiamulum* C. DC.

Piperaceae

August 4-5, 1911.

Loma de la Gloria, near Nombre de Dios. A treelet

4084 *Miconia heurlingii* Triana Melastomat.

Loma de la Gloria, N. de Dios. A low shrub in sunny places; fl. pink.

4085

Gesneraceae

Loma de la Gloria, N. de Dios, in wet, sunny places. Cor. orange-yellow

4086. *Adiantum*

Filices

Loma de la Gloria, N. de Dios, in half shady, rocky places.

4087. *Opeiba aspera* Aublet.  
Corteza; bark used for ropes.

Tiliaceae

Loma de la Gloria, N. de Dios. Trunk slanting, crown rounded. Fr. discoid, flattened, with seeds germinating inside.

4088. *Pharus latifolius*

Graminae

Loma de la Gloria, N. de Dios. In high, shady places; scarce.

4089. See *Rajania* Billson  
Raiz de la China. E 401.Loma de la Gloria, N. de Dios. Turtle-like rhizome, flat or concave below, with roots on periphery. Photos?4090. *Scaphyglottis unguiculata* Schltr. n. sp.

Orchidaceae

Loma de la Gloria, N. de Dios. Epiphytic. Fl. pale purple.



108

4091. *Epidendrum Nocturnum* Jacq.

Orchidaceae

August 4-5, 1911.

108

4092. ~~Guatavia~~ *Psychotria magna* Standley~~Rubiaceae~~

Loma de la Gloria, N. de Dios, sepals and outer petals pale yellow; inner petals white; a, yellow spot; b white wings; c. on acute point, 37mm. long, wings 20mm.

sepals 6 cm. long.

Loma de la Gloria, N. de Dios, a treelet  $\pm$  3m. high; fl. yellowish white; leaves all at top; fr. golden yellow, long pedunculate, almost round except at the flat, discoid top,  $\pm$  67mm. diam; pedunc. = 5-6 cm. 5 cells, containing 4-5 seeds.4093. *Guatavia natia* Pittier

Lecythidaceae

Loma de la Gloria, N. de Dios. A treelet, 1.50 high, not ramified; fl. near to base. Inside flesh bright yellow. (The real length of pedunc. seems to be 3m, and the fr. slightly pyriform at base.) Photos; alcoh. mat.

4094

Loma de la Gloria, N. de Dios. Saprophytic; entirely now white

4095. *Myrcia*

Myrtaceae

Guayabillo; very strong wood, used in native house building

Loma de la Gloria, N. de Dios. A small, or middle sized tree, with greenish brown, smooth, peeling bark; up to 10m. high; fl. very numerous, white.

4096. *Pera arborea* Mutis

Euphorbiaceae

Feli; strong, white timber, used for building purposes (beams, etc)

Loma de la Gloria, N. de Dios. A large, or mid-sized tree, trunk lanky, seldom very straight; bark whitish and smooth; crown short and flattish. Sep. 2, hairy white; pet. 2, smooth white; st. 3(?) caducous; ov. sup. 4; stigmas yellow, like a 4-rayed star.

4097

Selaginella

Loma de la Gloria, N. de Dios; on dry ridges; shrinks at noon hours.

4098

Hoja de frasco (they give that name to all thick leaved tree); very much sought for, for native house bldg purposes

Loma de la Gloria, N. de Dios. A small tree, often ramified from the base, with straight stems, and smooth bark, and radiate branching.

4099 *Campsonura castorensis* Warb.

4100

Filices

4101 *Capirira myriantha* Br. & Planch.

Anacardiaceae

Bagamani, Vigamani, Varamani; an oily substance is extracted from the trunk

4102 *Clidemia deppeana* Steud. Melastomat.  
Paita; fr. edible

4103 *Calathea lasiostachya* B. & S. Marantaceae.  
Bijao

4104 *Guastavia parvifolia* Pittier  
Bejico de Luca

Lecythidaceae

4105 *Chiotroma Bernouillii* Pittier.  
Cacao de Monte

Sterculiaceae

4106 *Rhabdadenia paludosa*  
(Vahl) Muere

Osclepiadaceae

August 4-5.

Loma de la Gloria, near Nombre de Dios. A small, 3m. high treelet, with smooth, straight stem and radiate branching. Fl. pinkish white.

Loma de la Gloria. N. de Dios; foot of hills on gravelly slopes.

Loma de la Gloria, N. de Dios; a large tree, up to 25 m high and more, and 80 cm. diam.; branching ascending, irregular; crown rounded depressed; fl. pale yellow; the trees are visible from a distance scattered on the afternoon-mn side of the hills.

Around Pato; a shrub with pinkish white flowers and azure-blue, hairy berries.

Loma de la Gloria, N. de Dios. Fl. stems  $\pm 1$  m high, dark purple; fruit hairy, pale yellow with green margin; perianth purplish.

Loma de la Gloria, N. de Dios. Mid-sized tree (largest seen  $\pm 40$  cm. diam., 20-25 m high, with a straight trunk, brownish,  $\pm$  rugged bark and fine wood. Fl. large, white (4-5 cm. diam. when flattened); fr. elongate (differ from n. 385 f. by larger fl. and  $\Delta$  calyx tips).

Loma de la Gloria, N. de Dios. Mid-sized tree (largest seen  $\pm 30$  cm. diam., 18 m high) trunk straight, with few primary limbs at top; flowers only on trunk, below first branches; calyx pale purple outside, red inside; petals red; corolla purple. Alc. Mat.

Aug. 7-8. 1911.

Between Playa Damas and Viento Frio. Fl. white, with light purple tinges. A vine



August 7-8, 1911.

107

- 4107 *Cosmibuena paludicola* Standley. Rubiaceae Between Playa Damas and Viento Frio, in mangrove swamp. A small tree, 4-5 m. high. Fl. white.
- 4108 *Euphorbia* Euphorbiaceae Between Playa Damas & Viento Frio, on sandy "cordon littoral". A sub-woody shrub, 30-40 cm. high.  
(Tripa de pollo en el R. Sinu, Colombia).
- 4109 *Conocarpus erectus* L. Combretaceae Near Viento Frio; a low shrub.  
Saragoza
- 4110 *Gilbertia arborea* (L. Mill.) Araliaceae Near Viento Frio, in tusks on sandy "cordon"; a shrub, 1-1.50 high.
- 4111 *Myroxylon panamense* (Turcz.) Kuntze Plaurtiaceae Sereto, near Viento Frio, along beach. A shrub or a treelet, thorny, 2-3 m. high.  
*Xyloma*  
Jobo de Lagarto
- 4112 *Croton* Euphorbiaceae Sereto, along the beach, in small colonies. A low shrub,  $\pm$  30 cm. high.
- 4113 Cruciferae Sereto, a night colony on the "cordon". Fl. white.
- 4114 *Stylogyne laevis* (Berst.) Mez Myrsinaceae Between Viento Frio & Palenque. A shrub, 1.50 high. Infl. purplish pink, petals pink.

4115. *Stenotaphrum secundatum* D. R. Graminae

4116. *Avicennia nitida* Jacq. Verbenaceae  
Mangle salado (small compound tree Laguncularia)

4117

4118 Portulacaceae

4119. *Mutrichardia arborescens* (L.) Schott. Araceae  
Castaña. Fruits boiled with salt and eaten by the natives

4120. *Lippia nodiflora* (L.) Michx. Verbenaceae

4121. *Morinda panamensis* Seem. Rubiaceae

4122. *Spathiphyllum Friedrichskollii* Schott. Araceae  
Hoja de gallineto; rallito.

August 7-8, 1911.

Along the Beach near Palenque. In colonies.

<sup>on coral rocks</sup>  
Near Palenque, along the beach. Low shrub, with pneumatophores. Fl. pinkish white. Sometimes a small tree.

Near Palenque, on coral rocks along the beach.

Near Palenque, on coral rocks along beach. Fl. purplish white.

Near Viento Frio, in mangrove swamp. About 2.50 high. Mature fruits obovoid, 2-3 cm. diam., with a brown peltate.

Near Palenque, on "cordon litoral", forming colonies. ~~Reptant~~ Fl. pale purple.

Palenque. A small tree, 5-6 m. high. Fl. white; corolla with reflexed lobes.

Back of Palenque, in swamps. Spathe white



August 7-8, 1911.

111

4123. *Sorocea affinis* Hemsl.

Berba', bollo blanco

Moraceae?

Back of Palenque, swampy forest. A small tree, 3-4m. high. Fl. yellow.

4124. *Odontonema longifolium* (Vest.) O. K.

Scrophulariaceae

Hills back of Palenque.  $\pm$  1m. high. Fl. scarlet red.

4125. *Intephora hermaphrodita* Ktze

Carriullo

Graminae

Around Palenque, common in clearings

4126. *Olyra latifolia* L.

Pitito

Graminae

Around Palenque in bushes.

4127

Filices

Back of Palenque, on skirt of woods

Bepico de Alambre. The decoction of the decorticated stems is  
reputed at Palenque as a very effective specific against gonorrhea

4128. *Rynchospora micrantha* Vahl.

Catello de Abadio

Cyperaceae

Around Palenque, a common weed.

4129

Platanillo morado

Muricaceae

Around Palenque, common in clearings

M

4130. *Meibomia sapientia* (Sw.) Britton

Pega pega

Leguminosae

Around Palenque, in meadows.

August 7-8, 1911

112

4131. *Polygala paniculata* L.

Polygalaceae Between Palenque & Viento Frio.

4132. *Vigna repens* (L.) O. Kuntze.

Leguminosae Between Palenque & Viento Frio, on sandy "orden littoral". Fl. yellow.

4133. *Chloris petraea* Sw.

Graminae Between Palenque & Viento Frio, in coco-plantations. Spikelets green.

4134. *Chiococca alba* (L.) Hitchc.

Rubiaceae Between Palenque & Viento Frio. A shrub, common. Fl. bell-shaped, yellow. Berries white.

4135. *Chloris petraea* Sw.

Graminae Between Palenque & Viento Frio, in many places. Spikelets purplish

4136. *Leptochloa virgata* Beauv.

Graminae Between Palenque & Viento Frio, in coco-plantations

4137. *Costus*

Zingiberaceae Between Viento Frio & Playa Damas, covering extensive patches in coco-plantations. Fl. yellowish red.

4138 *Lagenaria vulgaris* Ser.

Cucurbitaceae Viento Frio, in grassy places. ♂ fl. pinkish white. Fruit apple-shaped, ± 30 cm. diam., 20 cm. high, greenish white.



4139. *Timboistylis spadiacea* (L.) Vahl.  
Near Viento Frio, on the rocky beach.

Hyperaceae

4140. *Encostemma verticillatum* (L.) Engl.

Gentianaceae

4141. *Sapium giganteum* Pittier n. sp.

Euphorbiaceae

Olive. Used only as fuel. Gen. apparently caudexless, but  
letting out an abundant white resin.

4142. *Oldenlandia corymbosa*

Rubiaceae

4143. *Mosquitoxylon spamaicense*, Krug. & Urban. Anacardiaceae

Tobillo. Used as heavy timber, in house, bldg. Seldom used  
when cut down.

4144.

*Lippia betulifolia* HBK.

4145. *Aristolochia*

Guaco

Aristolochiaceae

4146. *Eragrostis hypnoides*

Gramineae

August 7-8, 1911.

Near Viento Frio, on rocky coral beach. Gregarious

115

Aug. 10th, 1911.

Near Fato'. A large, divaricate tree, with twisted limbs and flat,  
spreading crown. Stam. at base 1". Height to first fork, 8", total 30".

Wood white; bark rugous, split, grayish. Alc. Mat.

Fato', around houses and in waste places, a weed, not very common.  
Fl. white.

Loma de la Gloria, near top. A tree, 0.40 diam. at base, 15m. to first  
fork,  $\pm 25$ " high. Bark reddish, slightly rugous and "decorticans", resinous.

Heart yellowish, hard, brittle. Fl. small, white. Fr. first red, then very  
dark purple.

Around Numbre de Dios, ad fosas. An herb, with queer, composite  
looking fl.

Around Fato', in low, swampy grounds along Rio Numbre de Dios.

Around Fato', ad fosas.

116

4147. *Paspalum articulatum* Poir.

Gramineae

August 10<sup>th</sup> 1911.

Grand Nombre de Dios, ad fossas.

117

4148. *Piper*

Piperaceae

August 12-14, 1911

Along Rio Culebra above Sta Isabel, in clearings.

4149. *Aegiphila martinicensis* L.

Juan de la Verdad.

Verbenaceae

Along R. Culebra above Sta Isabel, in clearings. Cor. pale yellow.  
cordatus.4150 *Leandra secundiflora*  
(M. W. S.) Cogn.

Melastomataceae Along R. Culebra above Sta Isabel. A shrub. Cor. pale pink.

4151. *Olyra latifolia* L.

Graminae

Along R. Culebra above Sta Isabel.

4152 *Laristema pedicellatum* Standl. Type  
Laristema sp.

Laristema sp.

Along R. Culebra above Sta Isabel, in woods. A treelet, 2-3<sup>m</sup> high. Bark  
grayish white. 1st. (?) L.

4153

Filiices

Along R. Culebra, above Sta Isabel, in Woods.

4154. *Piper*

Piperaceae

Along R. Culebra, above Sta Isabel, in forest. A treelet, 2<sup>m</sup> high.



4155 *Niconia loucheophylla* Naud. Melastomat.

4156

4157

4158. *Pentagonia magnifica* Krause

4159

4160. *Quarea culebreana* C. D. C. n. sp.

4161. *Inga spectata* Willd.

4162. *Pithecolobium vahliianum* (D. C.) Benth.  
Totacatallo

August 12-14, 1911.

Along R. Culebra, above Sta Isabel. A treelet, 2<sup>m</sup> high. Cor. white.

Along R. Culebra, above Sta Isabel. A treelet, 4m. high.

Compositae Along R. Culebra, above Sta Isabel. Suffrutescent, 2<sup>m</sup> high; fl. white

Rubiaceae Along R. Culebra, above Sta Isabel. A treelet.

Marantaceae Along R. Culebra, above Sta Isabel, in swampy places.

Meliaceae Along R. Culebra, above Sta Isabel. A tree.

Leguminosae Along R. Culebra, above Sta Isabel. A mid-sized, ramified tree, spreading over water. Fl. white.

Leguminosae Along R. Culebra, above Sta Isabel. A tree, ramified from base and spreading, growing only in close proximity to current water and with a powerful root system. Cauliflorous. Fl. pinkish white or pink.

4163 *Elaterium longiflorum* Cogn. Cucurbitaceae

4164 *Faramea occidentalis* (Jacq.) R. Rich. Rubiaceae

4165 *Machaonia rotundata* Griseb. Rubiaceae  
(Mamucaballo) No spines nor thorns, not mamucaballo.

4166 Myrsinaceae

4167 *Omaouca corymbosa* H.B.K. Rubiaceae

4168 *Pavonia racemosa* Sw. Malvaceae

4169 *Cacoucia coccinea* Aubl. Combretaceae  
= *Combretum coccineum* (Aubl.) Engl. & Diels

4170 *Lonicocarpus luteo-maculatus* P. Leguminosae

August 12-14, 1911

Along R. Culebra above Sta. Isabela. An herbaceous vine. Fl. yellow.

Along R. Culebra, above Sta. Isabela. A treelet, 4m high. Fl. white.

Along R. Sta. Isabela, near the mouth; a common shrub, 2-3m high. Fl. white.

Along R. Sta. Isabela, near the mouth; a low, thick bush, close to the water. Buds claret-purple.

Along R. Sta. Isabela, near the mouth; a small, 4-5m high tree, with straight trunk. Barks black.

Along R. Sta. Isabela, near the mouth; a shrub with pale white flowers, open only early in the morning, and evening long stretches of the bank.

Along R. Sta. Isabela, near the mouth; a vine (?). fl. in long spikes, (the specimen being apparently a case of regression, with only a few fl. at base). Fl. scarlet red.

Along R. Sta. Isabela, near the mouth; a small tree. Fl. purple.



4171. *Montrichardia arborescens* (L.) Schott. Utracaceae  
Castaña, fr. boiled in water with salt, edible

4172. *Wulffia baccata* (L.f.) O. Kuntze Compositae

4173. *Perezia de playa* - Used as green vegetable, like spinach. Amaranthaceae

4174. *Euphorbia* Euphorbiaceae

4175. *Xyilinga peruviana* Lam. Cyperaceae

4176. *Piper marginatum* Jacq. Piperaceae  
Insaniello. I saw at Sta Isabela, the leaves used in the curatión of make tite, in conjunction with other leaves and roots (bedron among them.)

4177. *Piper auritum amplifolium* C. DC. Piperaceae  
Hinojo. Leaf used as "desinchadora", in cure of make tite. Odorous

4178. *Hirtella triandra* Sw. Rosaceae

August 12-14, 1911.

Along R. Sta Isabela, near mouth. Forms long stretches in low places. Stems up to 2-50 high.

Along R. Sta Isabela, near mouth. Viny shrub.

Around Sta Isabela, on the beach (cordon littoral).

Around Sta Isabela, on cordon littoral, prostrated and covering large spaces.

Around Sta Isabela, on cordon littoral, in tufts.

Around Sta Isabela, on cordon littoral and at foot of hills. A treelet

Around Sta Isabela, at foot of hills. An herbaceous (?) treelet, up to 2.50 high.

Around Sta Isabela, in forest at foot of hills.

4179

Filices

August 12-14, 1911.

Around *Isla Isabela*, on *Clusia* trunks.4180. *Drymonia spectabilis* Mart.

Gesneraceae

Around *Isla Isabela*, a vine. Fl. whitish outside, pale purple with darker spots inside.4181. *Psychotria undata* Jacq.

Rubiaceae

Around *Isla Isabela*. A shrub; fl. white, berries red.4182 *Nedelia trilobata* (L.) Hitchc. Compositae  
Clavellin de playaAround *Isla Isabela*, covering large stretches of *cordón littoral*.4183. *Gilibertia arborea* (L.) Max. MalvaceaeAround *Isla Isabela*, a shrub with erect stems, on *cordón littoral*.4184 *Restonia macrocarpa* Hemsl. Apocynaceae

August 16, 1911.

Along *Fato R.* above *Pombre de Dios*. A vine. Corolla white, purple tinged, with yellow throat.4185 *Compsoneura costaricensis* Warb. Lauraceae?Along *Fato R.*, above *N. de Dios*. A tree? or shrub. Fl. yellow.4186. *Turnerfortia bicolor* Sw. BoraginaceaeAlong *Fato R.* above *N. de Dios*. A viny shrub. Fl. white.



4187 *Dolioscarpus punctatus* Standl. Dilleniaceae

4188 *Paullinia punicularis* Radlk. sp. n. Sapindaceae

4189 Urticaceae

4190 *Protium* Burseraceae

4191

4192 *Struthanthus polystachyus* R. & Pav. Loranthaceae

4193 *Dialyanthera longepedunculata* Pth. ~~Lauraceae~~ <sup>Myristicaceae</sup>

4194 *Cheobroma subincanum* Mart. Sterculiaceae  
Cacao de Monte. Pulp acidulate, white.

August 16, 1911.

Along Fato' R. above N. de Dios. A epiphytic vine. Fl. white.  
Fr. red?.

Along Fato' R. above N. de Dios. A cauliformous vine. Fl. white. Fr.  
red.

Along Fato' R., above N. de Dios. A viny shrub with dense racemes of  
green flowers.

Along Fato' R., above N. de Dios. A small tree. Fl. greenish yellow.  
On 4191?

Along Fato' R., above N. de Dios. A small tree. Fl. greenish yellow.  
On 4190.

Along Fato' R., above N. de Dios. Fl. yellow.

Along Fato' R., above N. de Dios. A mid sized tree. Fl. brownish yellow.

Along Fato' R., above N. de Dios. A tree, 30 cm. de diam, 28-30 m. high.  
No flowers hit at end of limb. Fr. large, almost spherical, greenish  
& brown tinged outside.

4195. *Aphelandra micans* Moritz

Acanthaceae

4196. *Weberocereus Pittieri* Rose, n. sp.

Cactaceae

4197. *Coccoloba*

Polygonaceae

4198. *Aphelandra* ~~spec.~~ *Silichantha* DC. Acanthaceaediffert a *A. prismatica* foliis subsemitibus et spica apice acutiore. An nova species? - Linden.4199. *Cytharexylum macranthum* Pittier n. sp. Verbenaceae  
Tiquanero. Timber hard, but rough and little used4200. *Heliconia*

Musaceae

4201. *Rustia ferruginea* Standley

Rubiaceae

4202. *Inophloeum armatum* (Wig.) Pittier Moraceae  
Cucua' (cucua')

August 16, 1911.

Along Fato' R., near Dos Bocas. A shrub, 1.50-2<sup>m</sup> high. Bracts scarlet; corolla orange yellow.

Along Fato' R. near Dos Bocas. Epiphytic. Calyx &amp; cor. yellowish white. Anthers white. Stigma pink.

Along Fato' R., near Dos Bocas. A mid-sized tree. Racemes long, hanging. Fr. green.

Along Fato' R., near Dos Bocas, in damp, shady place. Fr. white.

Along Fato' R., near Dos Bocas, in damp forest. A tree, 25-30<sup>m</sup> high, 40<sup>cm</sup> diam. at base. Trunk straight. Bark rugose. Heart dirty yellow.

Along Fato' R., near Dos Bocas, in damp shady forest. Scales scarlet.

Along Fato' R., near Dos Bocas. A small tree, cor. white.

Around Dos Bocas, Fato' Valley. A tree 12<sup>m</sup> high, trunk straight.



130

4203

Blerro, Bledo.

Phytolaccaceae

4204

Solanaceae

4205. *Warszewiczia coccinea* Klotzsch

Rubiaceae

4206

Filiices

4207. *Heliconia*

Musaceae

*Maciza' montano.*4208 *Lycianthes heteroclita*  
(Sendtn.) *Butler*

Solanaceae

4209

Gesneraceae

On account of the red maculae, the leaves are said to be a remedy in case of  
difficult menses in women.4210. *Piper peracuminatum* DC.

Piperaceae

August 16, 1911.

131

Around Dos Bocas, R. Fato' Valley. On gravelly beaches.

Around Dos Bocas, R. Fato' Valley. On gravelly beaches. Fl. white.

Around Dos Bocas, R. Fato' Valley. A treelet. Bracts red. Fl. orange yellow.

Around Dos Bocas, R. Fato' Valley, on shady, humid flats among *Phytolaphes*

Around Dos Bocas, R. Fato' Valley, in shady places along River.

Around Dos Bocas, R. Fato' Valley, on beaches. A shrub 1.5-2' high. Fl. dirty  
yellow.Around Dos Bocas. Epiphytic. Corolla tubulose, yellow with reddish purple  
maculae at upper end.

Around Dos Bocas. A treelet in shady woods.

4211

Filices

4212

Filices

4213 *Renanthera densiflora* Staudl

Zingiberaceae

4214

Marantaceae

4215

Marantaceae

4216. <sup>9</sup>

Euphorbiaceae

4217 *Kolobochilus leiorhachis* Lindau

Acanthaceae

4218 *Conostegia subhirta* DC

Melastomataceae

August 16, 1911

Around Dos Bocas, R. Pato Valley; epiphytic.

Around Dos Bocas, R. Pato Valley. epiphytic.

Around Dos Bocas, R. Pato Valley, on shady, <sup>perennial</sup> damp, ~~inundated~~ <sup>inundated</sup> banks.Around Dos Bocas, R. Pato Valley, on shady, <sup>perennial</sup> inundated river flats.  
Fl. white. Bracts purplish green.Around Dos Bocas, R. Pato Valley, on shady per. inund. river flats. Perianth  
yellowish white.Around Dos Bocas, R. Pato Valley. Epiphytic. Perianth and whole inflo.  
red, or yellowish red.

Around Dos Bocas, R. Pato Valley. Shrub 1-2' high. Fl. cherry red.

Around Dos Bocas, R. Pato Valley. A tuulet. Corol. pinkish white.



4219

4220

4221. *Piper colonense* C. DC.

4222

4223

4224

4225

4226

Selaginellaceae

Selaginellaceae

Piperaceae

Filices

Filices

Filices

Palmae

August 16, 1911.

Around Dos Bocas, R. Fato Valley. On rocks along river.

On rocks along river  
 Around Dos Bocas, R. Fato Valley. ~~At least in dark forest.~~ 2-50 high.

Around Dos Bocas, R. Fato Valley. A treelet, 2-5 high, in dark forest.

Around Dos Bocas, R. Fato Valley. On rocks along river.

Around Dos Bocas, R. Fato Valley. A shrub or treelet. Lvs. white.

Around Dos Bocas, R. Fato Valley. Epiphytic.

Around Dos Bocas, R. Fato Valley. Epiphytic.

Around Dos Bocas, R. Fato Valley, in shady, damp forest. 1' high.  
 Stipe 35-40 cm.

4227

4228. *Philodendron grandipes* Krause.

4229

4230. *Phytalephas*4231. *Paspalum paniculatum* L.4232. *Paspalum vaginatum* Sw.4233. *Sporobolus virginicus* Kth.4234. *Fimbristylis spathacea* Roth.

Araceae

Araceae

Lactaceae

Graminae

Graminae

Graminae

Cyperaceae

August 16, 1911.

Arund Dos Bocas, R. Fato' Valley. Epiphytic.

Arund Dos Bocas, R. Fato' Valley. Terrestrial. On river flat.

Arund Dos Bocas, R. Fato' Valley. Epiphytic. Tent living

Fato' Valley, on flat or river bottom. Notes.

August 18, 1911

Cristobal, on low flats along French Canal.

Cristobal on flats, period. inundated, along French Canal.

Cristobal, on periodic. inundated flats along French Canal.

Cristobal, on periodic. inundated flats, etc.



4235. *Pinbristylis spadicosa* (L.) Vahl.

Cyperaceae

August 18, 1911.

Cristobal, on inundated flats along French Canal.

4236. *Eleocharis capitata* (L.) R. Br.

Cyperaceae

Cristobal, on inundated flats along French Canal.

4237. *Attalea cohune* Mart. ? Palmae

Banghé or Vangué. Acidulated water sought for and enjoyed by children, as is the meat. Caparo (Pto. Obaldia &amp; Bolivar).

4238. *Vismia guianensis* (Aubl.) Pers. GuttiferaeAug. 23<sup>d</sup>Loma de la Gloria, near Nombre de Dios. Fr. only. Acaulis. Fruit bunches erect. Photo (5x4 Habitus; plates germination & bunch) - Fr. sent to Mr. Cook. Leaves about 6m. long, 2<sup>m</sup> 82 mm base to first pinna. Fruit often 2-ellipsoid. 1-3 bunches to each plant. Other leaf: petiole = 2.85; lamina 3.82; total length 5.97. Pinnae: basal 36-40 cm.; median 70-74; terminal 33-35. Entire: lanceolate. Around Fato. A treelet.4239. *Piper cabagranum* C. DC., forma

Piperaceae

Around Fato, in shady forest. A treelet.

4240. *Piper persubulatum* C. DC.

Piperaceae

Around Fato, in shady forest. A treelet.

4241. *Piper tuberculatum* Jacq.

Piperaceae

Around Fato, in shady forest. A treelet.

4242. *Styrax panamensis* Standley

Styracaceae

Around Fato, in shady forest. A small tree, 8-10m. high.

4243. *Oldenlandia herbacea*

4244

4245. *Wulffia baccata* (L.f.) Kunze.4246. *Vitis*

Bejuco de agua

4247.

4248 *Bertiera guianensis* Aubl. Boraginaceae. Loma de la Gloria, near Fato'. A treelet, 2-3<sup>m</sup> high. Fl. white.4249. *Calixa nervosa* Radl. sp. n.

4250

August 23<sup>d</sup>, 1911

Rubiaceae? Sandy meadows around Fato'. Creeping on the ground. Fl. pinkish white.

?

Loma de la Gloria, near Fato'. A vine, woody. Fl. small, yellowish. Fr. cherry or yellowish red when ripe.

Compositae

Loma de la Gloria, near Fato'. A viny shrub. Fruit of n° 4172.

Vitaceae

Loma de la Gloria, near Fato'. A vine. Fl. yellowish green.

?

Loma de la Gloria, near Fato'. A vine. Fl. yellowish.

Sapindaceae

Loma de la Gloria, near Fato'. A treelet, 2<sup>m</sup> high, unbranched, pyramidal, the basal leaves being much larger than the upper ones.

?

Loma de la Gloria, near Fato'. A mid-sized or large tree. Berry bluish black at maturity. Fl. small, yellowish.



142

4251. *Manicaria saccifera* Gaertn. Palmae

Quá-gara. The leaf is said to be the most lasting among those used as thatch on this coast, roofs 40 &amp; 50 years never having needed repairs. Ribs fed on the fruits. Cabeza de negro en Pto. Chaldia &amp; Bolívar.

4252. *Pina-pina*

Palmae

Apparently without use

4253. *Cassia baccilaris* L.

Leguminosae

Along Rio Indio de Fato. A treelet with flat crown, 2.5 high, fl. pale yellow.

4254. *Piper peracuminatum* HB.

Piperaceae

Along R. Indio de Fato. A treelet, 2-3, in shady woods.

4255 *Mygin-da eucymosa* L.

Hippocrateaceae

Along R. Indio de Fato. A treelet, with spreading habit. Fl. greenish yellow, or reddish. Cherry red.

4256

Cyperaceae

Along the sea beach at R. Indio de Fato.

4257 *Conocarpus erectus* L.

Combretaceae

Along the sea beach at R. Indio de Fato.

Saragoza. The wood is used for "las curvas de los botes, as is to a lesser extent that of the *uvero* or *Coccoloba uvifera*.4258. *Adenocalymna foveolatum* Bureau

Bignoniaceae

On forest outskirts at R. Indio de Fato. Fl. pale purple

4259. *Stenotaphrum secundatum* P. K.

Graminae

4260. *Paspalum conjugatum* Berg.

Graminae

4261. *Paspalum vaginatum* Sw.

Graminae

4262. *Aspasia epidendroides* Lindl.

Orchidaceae

4263. *Peperomia obtusifolia* A. Dietr. forma A19, C. DC.

Piperaceae

4264

Orchidaceae

4265. *Epidendrum florijugum* Rodriguez

Orchidaceae

4266. *Epidendrum leucocardium* Schltr. sp. nov.

Orchidaceae

Aug. 24, 1911

Along the beach at R. Indio de Fato.

Along the beach at R. Indio de Fato.

Along the beach at R. Indio de Fato.

On trunks in the mangrove bush at Rio Indio de Fato.

Rio Indio de Fato, epiphytic in mangrove forest along sea shore

Rio Indio de Fato, epiphytic in mangrove forest along seashore. Fl. greenish with purple stripes.

Rio Indio de Fato, epiphytic in mangrove forest along seashore. Fl. green.

Rio Indio de Fato, epiphytic in mangrove forest, quite close to seashore. Sepals and other petals purplish yellow to yellow. Labellum cream white with bright yellow spot at throat.



146

4267. *Brassavola venosa* Lindley.

Orchidaceae

August 24<sup>th</sup> 1911.

147

Rio Indio de Fato, epiphytic in mangrove bush close to seashore. Fl. white, with the long sepals yellow.

4268. *Rhizophora Mangle* L.

Rhizophoraceae

Rio Indio de Fato, one of the mangrove (*Rhizophora*?). Sometimes a high tree. Fl. yellow.

Mangle colorado. The young shoots are used to dye in red fishing cords and light fabrics. The color is everlasting.

4269. *Lonchocarpus amplifolius*

Leguminosae

Rio Indio de Fato, on "cordón littoral". A large tree.

4270. *Machaonia rotundata* Griseb.

Rubiaceae

Rio Indio de Fato, along beach. A treelet 2-3<sup>m</sup> high. Fl. white.4271. *Piper pallidibracteum* C. & B.

Piperaceae

Rio Indio de Fato, characteristic of the near-sea belt. A low shrub.

4272. *Enallagma obovata* (Miers) H. Baill.  
Cutumito = cucurbitina

Bignoniaceae

Rio Indio de Fato, along the beach. A low tree with butt stems and spreading habit. Fl. greenish or purplish yellow. Fr. small ( $\pm$  8 cm. diam.).4273. *Stylogyne laevis* (Aubl.) Mez

Myrsinaceae

Rio Indio de Fato, on "cordón litt." in mangrove forest. Fl. pink. A shrub.

4274. *Hippocratea volubilis* L.

Hippocrateaceae

Rio Indio de Fato, along beach in mangrove formation. A vine. Fl. greenish yellow. Note the way the vine is held up, by the floral twigs twisting around branches.

148

4275 *Machaonia rotundata* Griseb

Monday

Rubiaceae

August 28<sup>th</sup> 1911.

Puerto Obaldia, along beach.

149

4276

Palmae

Puerto Obaldia in forest. Stems 1.50-2m high.

4277

Araceae

Puerto Obaldia, in forest. ~~Epiphytic~~ Terrestrial! perhaps accidentally.4278 *Gilibertia arborea* (L.) March

Anacardiaceae

Puerto Obaldia, in forest. A small, umbrelliferous tree.

4279

Borraginaceae

Puerto Obaldia, in forest. A shrub. Fl. white. Infl. scirpoid.

4280 *Aphelandra tetragona* (Vahl) Nees.

Resucitado.

Acanthaceae

Puerto Obaldia, in forest. A shrub. Fl. red. ~~or~~ scarlet.4281 *Justicia vitzliputzli* Lindau.

Acanthaceae

Puerto Obaldia, along river, in shady places. Fl. purple

4282 *Malpighia glabra* L.

Malpighiaceae

Puerto Obaldia, in forest. A small tree. Fl. purplish pink.



150

4283

4284. *Panicum trichoides* Sw.4285. *Heliconia*

4286

4287

4288. *Piper*

4289

Fruta de hicoitea. Seeds enveloped in a sweet, edible pulp.

4290

Tuesday

August 29<sup>th</sup> 1911.

Filices

Port Obaldia, in clearings.

Graminae

Port Obaldia, in clearings

Musaceae

Port Obaldia, in forest of the back hills. Stems  $\pm$  2m. Perigon yellow, bracts orange red.

Hymenophyllum

Port Obaldia, in humid forest of the back hills.

Solanaceae

Port Obaldia, in forest of the back hills

Piperaceae

Port Obaldia, in forest of the back hills

?

Port Obaldia, in forest of the back hills. fr. nut-like, ridged &amp; pitted, orange yellow, containing 2 nuts in a white pulp. Fr. of n. 4291?

Port Obaldia, in forest of the back hills. Fl. tubulose-campylota, purplish  
Epiphyte

4291

?

4292

Burmanniaceae

Port Obaldia, in forest of the back hills. Larger than the following.

Stems dark purple. Corolla tube purplish, lobes violet, with a white ring and dark lines at throat. Style  $\pm$  equal to tube

4293

Burmanniaceae

Port Obaldia, in forest of the back hills. Stems white, more slender.

Tube white, lobes pale blue. Style  $\pm$  equal to tube

4294

Burmanniaceae

Port Obaldia, in forest of the back hills. Fl. yellow. Saprophyte

4295

Burmanniaceae

Port Obaldia, in forest of the back hills. Fl. sterile, white. Saprophyte.

4296

Moraceae

Port Obaldia, in forest of the back hills. Fr. yellow, containing several nutlets.

4297

Filices

Port Obaldia, in forest of the back hills. Common.

4298. *Pentagonia Pittieri* Standley  
Carbonero. Used as fuel

Rubiaceae

Port Obaldia, in forest of the back hills. Petioles broadly winged at base with bloody red wings. Bracts pale green, with red margins. A shrub or treelet, up to 3m. high.

August 29<sup>th</sup> 1911.



4299 *Capnium baccatum* L. Solanaceae  
Cuna: = kēpur; ajillo

4300 *Tetrathylacium johansenii* S. H. Rosaceae

4301 *Piper sperdinum* L. & C. forma Piperaceae

4302 *Piper* Piperaceae

4303 *Miconia triplinervis* R. & H. Melastomataceae

4304 Melastomataceae

4305 Palmae

4306 Burmanniaceae

August 30<sup>th</sup> 1911.

In clearings about Port Obaldia. Fl. white. Fr. red. Gregarious

Port Obaldia, in forest. A large tree, about 30<sup>m</sup> high.

High ravines of the Quebrada de Armaligua, Rio Miel basin. A shrub.

High ravines of the Quebrada de Armaligua, Rio Miel basin. A shrub.

High ravines of the Quebrada de Armaligua, Rio Miel basin. A treelet

High ravines of the Quebrada de Armaligua, R. Miel basin. A treelet or rather shrub. L. lvs pink, corolla pinkish white. St. yellow.

High ridges at the headwaters of Rio Miel. Stems ± 4m. high, smooth.

Hills back of Puerto Obaldia. Epiphyte. Corolla large, funnel-shaped; tube yellowish white, lobes violet. Style much shorter than tube.

4307

Cyperaceae

4308

?

4309

Filices

4310. *Aulacocarpus completens* Pitt.

Myrtaceae ?

Gasparilla. Wood very hard

4311 *Stylogyne laevis* (Verst.) Mez

Myrsinaceae

4312. *Carludovica*

Lythraceae

4313. *Clavija Mezii* Pittier sp. n.

Echeophorastaceae

4314. *Paspalum conjugatum* Berg.

Graminae

August 30<sup>th</sup> 1911.

Hills back of Puerto Obaldia.

Hills back of Puerto Obaldia

Hills back of Puerto Obaldia

Hills back of Puerto Obaldia, a <sup>mid-sized tree, about 25 m. high.</sup> ~~shrub~~ <sup>tree</sup>.  
 trunk straight, seldom over 35 cm. at base. Bark smooth, grayish. Pet. 5, pink. St. 10.  
 calyx 5 lobed, persistent. Alcohol mat. - Wood sp.

Hills back of Puerto Obaldia. A treelet. Fl. pink

Hills back of Puerto Obaldia. <sup>by accident?</sup> ~~Cerastial~~. Reipe fruit orange,  
 sweet scented

Hills back of Puerto Obaldia. A treelet. Fl. orange red. Stam. 4?

Port Obaldia, in clearings. Stoloniferous



158  
4315

Thursday

Filices

August 31<sup>st</sup>, 1911

159

Around Port Obaldia, in forest.

4316.

?

Around Puerto Obaldia, in the forest near the sea-shore. A small, depressed tree.  
Fl. greenish.

4317 *Salacia*

?

Hills back of P<sup>to</sup> Obaldia. A vine.

4318. *Mimusops darienensis* Pittier, sp. nov.

Sapotaceae

*Guayonillo Negro*. Su el balata y ademas una madera muy dura, usada para piezas. De mucha duracion, y medianamente fina.

4319

Rhamnaceae

Hills back of P<sup>to</sup> Obaldia. A large tree, 40-50<sup>m</sup> high, with three or four rounded powerful roots and no wings. Trunk straight, up to 1.50 diam. at base, covered with a grayish brown scaly bark. Crown depressed and spreading, with strong, horizontal limbs. One of the most abundant and characteristic trees of the forests in the lower hills.  
Fl. white. Fr. with 5 seeds (?) about 5 cm. in diam. Wood. Exterior crown  $\pm$  20 acute-lobed into corolla 6 lobes, acuminate, ascending. Stamens 6, staminodes 6, alternating ???  
Hills back of P<sup>to</sup> Obaldia. A mid-sized tree.

4320. *Symphonia globulifera* L. fil.

Guttiferaceae

*Cerillo*. Gives an abundant, milky, yellow latex, used in the curative of sores and also to ink the straps of cloth which are then used as candles.

Hills back of P<sup>to</sup> Obaldia. A tree 40-45<sup>m</sup> high. Trunk straight, 1.20 diam. at base, hollow, covered with a scaly brown bark. Crown elongate, limbs short. Flowers dark pink (alcohol sp.). Base of trunk with small wings. Wood

4321

Papontae

~~Nyssa~~ Porto Rico. Used for thatching

Hills back of P<sup>to</sup> Obaldia. Stem not over 30 cm.

4322 - *Gyranthera darienensis* Pittier

Sterculiaceae

Hills (2<sup>o</sup>) back of P<sup>to</sup> Obaldia. A tree about 25<sup>m</sup> high. Trunk straight, with flat "bambas". Fl. white. Wood white, soft. Peduncles very long, often geminate.

4323. *Phytalephas**Phytalephantaceae*Sept. 2<sup>d</sup>, 1911.4324. *Swartzia panamensis* Benth.  
Cornudo*Leguminosae*

Around Puerto Obaldia, everywhere. Length 4.60. Pinnae about 70 on each side, beginning almost from base. Basal pinna 32 cm, median 68 cm. long.

4325

*Polypodiaceae*  
*Polypodiaceae*

Around P. Obaldia. A small tree, usually bent and irregular. Fl. yellow. Often a high tree, as in the plains of Tucurti, where I saw one 40 cm. diam at base, branching from about 3 m. in limbs ascending very close to the main axis; the whole tree was about 25 m. high.

Around P. Obaldia, along River.

4326

*Leguminosae**Guacamayo macho*

Port Obaldia, along River. A mid-sized tree. Fl. white.

4327. *Reuealvia densiflora* Standl. *Zingiberaceae*  
Mata-Andrea

Port Obaldia, along river. Fl. white, calyx pink or bloody red.

4328. *Sapium jamaicense* Swartz.  
Ñipe*Euphorbiaceae*

Hills back of Port Obaldia. A large tree, up to 30 m and 1 m in diam. Trunk straight. Crown irregular. Laticiferous.

4329. *Odontadenia speciosa* Benth. *Asclepiadaceae*

Hills back of Port Obaldia. A vine flowering on top of high trees. Laticiferous. Fl. yellow.

4330

*Palmae**Cortaderia*

Hills back of Port Obaldia. Stems 2-3 m. high. Panicles racemose.



4332. *Chaetochloa amplifolia*  
Rato de caballo

4333 *Gurama*  
Bejico ven-te-veo.

4334. *Bauhinia ligulata* Pittier  
Casco de vaca

4335  
*Jasminillo*

4336. *Brosimum*  
Guaimaro

4337  
Yaya. No use.

4338. *Eschweilera panamensis* Pittier  
Majagua de Indio

Amarantaceae

Graminae

Cucurbitaceae

Leguminosae

Rubiaceae

Meliaceae

Anonaceae

Lecythidaceae

Sept. 2, 1944.

Hills back of Pto Obaldia. A vine.

Cultivated places around Pto Obaldia

Hills back of Port Obaldia, in forest. A vine, high climber. Growth orange yellow, calyx red.

Hills back of Pto Obaldia. A tree, up to 40' high and 80 cm. in diam. Trunk straight. Bark even, longit. <sup>l</sup> fissured, brown. Brs div. Fl. lilac.

Hills back of Pto Obaldia. A shrub. Fl. small, white. Berry blue.

Hills back of Pto Obaldia. A mid-sized or large tree, up to 25 m high and 60 cm. in diam. Bark grayish, smooth. Crown irregular, depressed. Wood. Laticiferous.

Hills back of Pto Obaldia. A mid-sized or small tree, 30 cm. diam. about 10 m. high, trunk straight, bark gray, smooth. Fl. large yellowish.

Hills back of Pto Obaldia. Up to 40 m. diam. 30 m. high. Bark <sup>l</sup> fissured, even, gray. Brs div. Fruit <sup>l</sup> elongated.

Sunday

Sept. 3<sup>rd</sup> 1911.

185

164  
4339 *Soliscarpus punctatus* Standl.

Hills back of Puerto Obaldia. A high slender.

4340 *Cespedesia macrophylla* Seem. *Ochnaceae*

Hills back of Puerto Obaldia. A large tree, 60 m. at base and about 30 m. high. Brown irregular. Fl. bright yellow. Selected the smaller specimens, as the racemes and leaves are often enormous.

4341 *Castilla fallax* O. F. Cook. *Moraceae*  
Caucho macho

Hills back of P<sup>to</sup> Obaldia, from foot to upper station. A tree up to 1 m. in diam and 30 m. high.

4342 *Jacquinia nemophila* Pittier sp. n. *Theophrastaceae*

<sup>Plum</sup>  
Valley of Tucuriti, near P<sup>to</sup> Obaldia. A treelet 3 m high, pyramidal. Fl. yellow. Fr. yellow gold. Seed surrounded with a sweet pulp. Fruit in alcohol  
low jar

4343 *Lezythis ~~amphibia~~ Miels?* *Lecythidaceae*

Olleto i pr. - olla de muno. La madera es tan dura como duradera, y se asegura que es la mas resistente en agua dulce, salada y en el suelo. Cree casi siempre en las lomas bajas a lo largo de la costa.

Hills of Tucuriti, near P<sup>to</sup> Obaldia. Diameter 1 m 50. Tronc droit, Hauteur to white  
talle de l'arbre 25-40 m. Corce tres-croquante longitudinale, noiratre; aubier 5-10 cm. thick, coeur orangeatre, tres dur.

4344. *Bombacaceae*

Hills of Tucuriti, near P<sup>to</sup> Obaldia. A mid-sized tree.

4345 *Brosimum Galactodendron* Don. *Moraceae*  
Cabo de leche

Hills of Tucuriti, near P<sup>to</sup> Obaldia. A tree about 25 m. high. Bark grayish white, smooth or verrucose. Diam. 40 cm.

4346 *Polystachya luteola* Kth. *Orchidaceae*

Hills of Tucuriti near P<sup>to</sup> Obaldia. Epiphytic on *Lezythis*. Fl. yellow.



Sept. 3, 1911.

4347

Filices

Hills of Tucurti near Port Obaldia. Very common on slopes and in cool gorges.

4348. *Piper sperdinum* C. DC.

Piperaceae

Hills of Tucurti near Port Obaldia. In gorges, a low shrub.

4349

Euphorbiaceae

Hills of Tucurti near P<sup>to</sup> Obaldia. A small tree, 4<sup>m</sup> high.

4350

?

Hills of Tucurti near P<sup>to</sup> Obaldia. A vine, fl. whitish yellow.

4351

Burmanniaceae

Hills of Tucurti near P<sup>to</sup> Obaldia. Ramose; stems purplish yellow.

4352

Cyclanthaceae

Plain of Tucurti near P<sup>to</sup> Obaldia. Epiphytic. Fr. purplish red.

4353

Molenillo

Sterculiaceae

Plain of Tucurti near P<sup>to</sup> Obaldia. A small tree,  $\pm$  10<sup>m</sup> high, pyramidal.

4354

Apocynaceae

Plain of Tucurti near P<sup>to</sup> Obaldia. A small tree, 3<sup>m</sup> high. Fl. & fr. golden yellow.

4355. *Macrolobium floridum* Karsten.

Leguminosae

4356

Filices

4357. *Lucuma*

Sapotaceae

4358. *Rollinia Pittieri* Safford

Anonaceae

4359 *Phallosadenia paludosa* (Vahl) Miers  
Campanilla de playa

Apocynaceae

4360 *Thevetia nitida* (HBK.) DC.  
Lagaperro

Apocynaceae

4361

Malvaceae

Majagua de playa

4362. *Enallagma obovata* (Miers) H. Baill.  
Tutumuelo

Bignoniaceae

Sept. 3<sup>rd</sup>, 1911

Plain of Tucurti, near Pto Obaldia. A mid-sized tree, with smooth bark, ~~had~~ irregular branching. Euliflorous, or at least partly. Petals very numerous, pinkish white, frilled on the margin. Wood  
Along Tucurti R. near Pto Obaldia. Arborescent, about 2" high.

Along Tucurti R., apparently a common tree. Trunk straight, bark smooth. About 30" high. Wood hard. Fl. yellowish white. Fr. yellow when ripe.

Plain of Tucurti near Pto Obaldia. A mid-sized tree, about 25" high. Fl. 3-winged

Pto Obaldia, along beach.

Pto Obaldia, along beach

Pto Obaldia, along beach

Pto Obaldia, along beach.



Sept.

4<sup>th</sup>, 1911.

44 4363 *Stigmaphyllon ellipticum*  
(HBK) Juss.

Malpighiaceae

P<sup>to</sup> Obaldia, along the beach. A vine, fl. yellow.

44 4364 *Coryngium foetidum* L.

Umbelliferae

P<sup>to</sup> Obaldia, in meadows. Apparently common.

44 4365 *Scoparia dulcis* L.

Scrophulariaceae

P<sup>to</sup> Obaldia, in open places. Common.

44 4366 *Piper Obaldianum* C. DC.

Piperaceae

P<sup>to</sup> Obaldia. Common in clearings. A low shrub.

44 4367 *Oryza sativa* L.

Arroz de secano

Graminae

P<sup>to</sup> Obaldia. Cultivated.

44 4368 *Meibomia adscendens* (D.C.) Wye  
Caxillo

Leguminosae

P<sup>to</sup> Obaldia. In clearings. Fl. lilac

44 4369 *Eupatorium microstemon* Cass.

Compositae

P<sup>to</sup> Obaldia. A weed. Fl. purple

44 4370 *Pilea*

Urticaceae

P<sup>to</sup> Obaldia, in shady, cultivated places.

Sept. 4, 1911.

513

173  
4371. *Panicum pilosum* Sw.

Graminae

Pt Obaldia, in clearings.

4372. *Dichromena radicans* Lill. & Cham. Cyperaceae

Pt Obaldia, in clearings

4373 *Erechtites hieracifolia* (L.) Raf.  
Compositae

Pt Obaldia, in clearings

4374. *Panicum hirsutum* Sw.

Graminae

Pt Obaldia, in clearings.

4375. *Panicum fasciculatum* Sw.

Graminae

Pt Obaldia, in clearings

4376 *Melothria guadalupensis*  
(Spreng.) Cogn

Cucurbitaceae

Pt Obaldia, in clearings.

4377. *Borreria ocyroides* (Burm.) D.C.

Rubiaceae

Pt Obaldia, in cultivated fields. Fl. white

4378. *Solanum*

Solanaceae

Pt Obaldia, in clearings, fields, etc. Fl. white



Tuesday

Sept. 4-5, 1911.

4379 *Sicydium tannifolium* (HBK.) Cogn.

Port Obaldia, in clearings. A herbaceous vine. Fl. small, white.

4380. *Piper auritum amplifolium* B. & H.

Piperaceae

Port Obaldia, common up to 2000' from seashore and gregarious.

4381. *Lida rhombifolia* L.

Malvaceae

Pt Obaldia, in meadows. Fl. yellow.

4382. *Lida rhombifolia* L.

Malvaceae

Pt Obaldia, in waste places. Fl. white.

4383. *Echinochloa spectabilis* Link.

Graminae

Armila, along inner bayou. A tall, ascending grass. Stems 3-4' long.

4384. *Mimusops darinenensis* Pittier, sp. nov. Sapotaceae  
Nispero

On the hills between Obaldia & Armila.

4385. *Psychotria uliginosa* Sw.

Myrsinaceae

On the hills between Obaldia & Armila. A low shrub (0.30-0.40 high).  
Fl. small, pink. Berries red.

4386. *Coussapoa brevipes* Pittier

Moraceae

On a Nispero n° 4384, on hills between Obaldia & Armila.

4 4387

Clusiaceae

Epiphytic on Mopero n° 4384. Btw. Obaldia and Armila.

4 4388

?

On hills between Obaldia and Armila. Fr. red.

4 4389 *Kohleria tubiflora* (Cav.) Gesneraceae  
Haust.Along rocky shore near Jucurti, on the way from Obaldia to Armila.  
Fl. red brick4 4390. *Lopezia*?Along rocky shore near Jucurti, on the way from Obaldia to Armila.  
Fl. small, pinkish white.4 4391. *Sporoclea*

Port Obaldia on "cordon littoral".

4 4392. *Sporoclea*

Port Obaldia, on "cordon littoral". Fl. pinkish purple

4 4393. *Rheedia magnifolia* Pittier  
Madroño

Rocky beach, in forest, west of Obaldia. See note on file

4 4394. *Eschweilera reversora* Pittier

Sapotaceae

Pavies of El Armila River. A large tree, nearly 80 cm. in diam.,  
with very hard wood. No flowers.



4394 178

Chusciaceae

Sept. 8<sup>th</sup> 1901.

439

Between Otaldia and the mouth of Armaligua, on rocks. Fl. dark purple. A shrub, covering face of rock.

4395 Vigna repens (L.) D. Kunze

Leguminosae

Between Otaldia & mouth of Armaligua, on coral beach. Fl. yellow, in a long erect peduncle.

4396. Piper pallidibracteum C. B.

Piperaceae

Between Otaldia & mouth of Armaligua, in forest. A treelet.

4397

?

Between Otaldia & mouth of Armaligua, in forest. Fl. green? A treelet, 2m. 5 high.

4398. Philodendron (indet.)

Araceae

Between Otaldia & mouth of Armaligua, very abundant in forest along the foot of the hills. *Spathe carminata*; among the trees one *garrapata*, in many specimens.

4399 Schwachaea  
eupheoides (Beuth.) Cogn

Melastomataceae

Between Otaldia & mouth of Armaligua, on coral beach. Fl. pink.

4400

Portulacaceae

Between Otaldia and mouth of Armaligua. On coral beach. Fl. pink or white

4401. Fimbristylis spadiacea (L.) Vahl. Cyperaceae

Between Otaldia and mouth of Armaligua. On coral beach.

4402. *Pamflora suberosa* L.?

440

4403. *Melanthera*

4404. *Heliconia*

4405. *Cassia baccilaris* L.

4406. *Leucaemontana grandiflora* Jacq.

4407

4408. *Brownea Rosa-de-Monte* Berg.  
Olisa; Olisa-macho

4409. *Calathea*  
*Pleiostachya pittieri* Roubie

*Pamfloraceae*

*Compositae*

*Musaceae*

*Leguminosae*

*Apocynaceae*

*Leguminosae*

*Leguminosae*

*Neranthaceae*

Sept. 8, 1911.

Between Oaldia & mouth of Armaligua. Fl. small, green. Near  
kuch.

Between Oaldia & mouth of Armaligua. Fl. white.

Around Oaldia, in swampy bushes. 2m. high.

Around Oaldia, in bushes along track. A treelet. Fl. yellow.

Around Oaldia, a shrub or a treelet with flat iron. Fl.  
yellow.

<sup>Sperdi</sup>  
On cordun littoral at mouth of ~~Tucurti~~. Fl. purple.

Mountain between Tucurti & Armila. A treelet. Fl. <sup>pink</sup> on a  
lateral branchlet 30m. above ground.

Mountain between Tucurti & Armila. Fl. white.



4 4410 - *Psychotria insignis* Standley

Rubiaceae

Mountain between Jucarti &amp; Armila. Fl. greenish white.

4 4411

Palmae

Mountain between Jucarti &amp; Armila. Stem slender, 1.50-2m. high.

4412

Filix

Mountain between Jucarti &amp; Armila. Sub-arborescent.

4413

Filices

Mountain between Jucarti &amp; Armila

4 4414. *Anthurium*

Araceae

Mountain between Jucarti &amp; Armila. Epiphytic. Spathe green.

4 4415

Filices

Mountain between Jucarti &amp; Armila.

4 4416. *Desmanthus*

Palmae

Mountain between Jucarti &amp; Armila. Note the apex of leaves.

4 4417

Filices

Mountain between Jucarti &amp; Armila.

184

4418. *Prosimium galactodendron* Sm.

Palo de leche

4419. *Uragoga phoenicea*

4420

4421

4422. *Uragoga tomentosa*

Oreja de mula (Zona)

4423. *Psychotria*4424. *Lecythis armilensis* Pittier.

4425

Sept.

8, 1911.

Moraceae

Mountain between Jucarti & Armila. A tree 45m. in diam.  
20m. high. Fr. in alcohol, yellow when mature.

Rubiaceae

Mountain between Jucarti &amp; Armila. A shrub.

Rubiaceae

Mountain between Jucarti & Armila. A treelet. Fl. azure  
blue

Filiaceae

Mountain between Jucarti &amp; Armila.

Rubiaceae

Mtn between Jucarti &amp; Armila. A shrub.

Rubiaceae

Mountain between Jucarti & Armila. A treelet, 2.5 high.  
Fl. greenish.

Lecythidaceae

Hill between Sperdi (= Jucarti). A large tree, very similar in bearing  
and dimensions to n° 4343, but with a distinct pygid.

Sept. 28, 1911.

Cactaceae

Near Matachin, C. Z. - Given by Mr Verner.

185



186  
4426 - *Gustavia parvifolia* Pittier sp. nov.  
Bejuco de Lucá.

4427. *Paullinia fimbriata* Radlk.

4428. *Eropidium polystachya* (Sw.) Ames

4429. *Psidium Guayaba pyriferum* L.

4430. *Psidium Guayaba pomiferum* L.

4431. *Aristolochia*

4432. *Catasetum maculatum* Rth.

4433. *Xylinia brevifolia* Rottb.

Sept. 12, 1911.

Lecythidaceae Loma de la Gloria, near umbré de Dios. Fr. of n° 4104. 187

Sapindaceae Loma de la Gloria. A high climbing vine. Fl. white.

Orchidaceae? Around Obaldia, Sept. 8, 1911.

Sept. 19-22, 1911.

Myrtaceae Around Gamboa. See notes on Photographic cover.

Myrtaceae Around Gamboa. " " " "

Around Gamboa. Labellum hairy, yellow, densely spotted in brown.

Around Gamboa on a palm-tree (fan-palm, indigenous). Fl. yellow, or brownish yellow.

Cyperaceae Matachin, in meadows.

Sept. 19-22 1911

- 188  
4434. *Cyperus sphacelatus* Roth. Cyperaceae Round Matachin, in meadows.
4435. *Paspalum fasciculatum* Willd. Graminae Round Matachin. Common along the Canal and used for experimental plantation on its sides.
4436. *Paspalum microstachyum* Graminae Round Matachin, along railroad.
4437. *Elatium longiflorum* Cogn Cucurbitaceae Round Gamboa, in bushes. Fl. golden yellow.
4438. *Meibomia supina* (Sw.) Britton Leguminosae Round Gamboa, in meadows. Fl. pale pink. Stems erect.
4439. *Meibomia axillaris* (Sw.) Leguminosae Round Gamboa, in meadows.
4440. *Syntherisma sanguinalis* Dulac Graminae Between Gamboa and Matachin, along railroad.
4441. *Laguncularia racemosa* Gaertn. Combretaceae Between Borozal & Panama, in swamps.
- 189



4442. *Vochysia ferruginea* Mart.

Vochysiaceae

4443. *Tribulus maximus* L.

Zygophyllaceae

4444. *Chaetochloa imberbis* Scribn.

Graminae

4445. *Justicia comata* Sw.

Acanthaceae

4446

*Venenillo teton.* No use

October

Solanaceae

4447. *Randia formosa* (Jacq.) Schum.

Rubiaceae

4448. *Malache panamensis* Standley

Malvaceae

4449. *Solanum scaberrimum* Vahl*Uraña-gato*

Sept.

6. 1911.

hills around Corozal. A medium sized tree, 10-12m. high.

A depressed crown. Fl. yellow, very numerous, odorous (violet or near).

along railroad between Corozal & Panama. Fl. yellow with dark spot  
bottom, bright open in morning.

around Culebra, in waste places.

around Gamboa, in marshy places. Fl. pale purple.

1911

Shrub, in meadows. Fl. purple, small. Fr. yellow.

Shrub, in woods. Fr. ovoid, striped white &amp; green.

Shrub, along hedges. Fl. white. Plant  $\pm$  60 cm. high, growing  
in bunches.

Shrub, in pastures and around houses. Shining. Fl. purple.

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Venerillo telor. Flu. p...  
D... ..

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8 ...

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October 4, 1911.

- 4 4450. *Peperomia pellucida pygmaea* Mig. *Peperaceae* Chepo, around houses, common.
- 4 4451 *Amarantaceae* Chepo, around houses, common
- 4451a. *Borreria cymoides* (Burm.) D.C. *Rubiaceae*
- 4 4452. *Oxanopus compressus* Beauv. *Graminae* Chepo, in grassy places about town.
4453. *Cuscutum notatum* Feijóe *Graminae* Chepo, in streets and grassy places about town.
- 4 4454 *Nyctis verticillata* Jacq. Chepo, in waste places around houses. Fl. white. Plant up to 1.5 m.  
n.v. Galea - Infusion usada para curar indigestiones
- 4 4455. *Scoparia dulcis* L. *Scrophulariaceae* Chepo, around houses. Fl. white  
n.v. Escobilla menuda - Febrífugo
- 4 4456. *Cassia occidentalis* L. Chepo, around houses. Tree, about 1.20 high. Fl. yellow. Foliage ~~green~~ <sup>dark green, for purplish.</sup>
- 4 <sup>large</sup> *Cajillo* - Vermífugo. Las vainas tiernas sirven a los niños en sus juegos <sup>dark green, for purplish.</sup>
- 4 bajo el nombre de plátanos, y las flores las llaman ~~palomitas~~ palomitas.
- 4 4457. *Microtea debilis* Sw. Chepo, around houses.  
Hierba de sapo. Infusion para cortar corrimiento

Oct. 4 1911.

4 4458. *Euphorbia*  
Hierba de pollo.

Chepo, around houses.

4 4459. *Evolvulus*

Convolvulaceae

Chepo in stony places about houses. Open all day long. Fr. white.

4 4460. *Pilea*

Urticaceae

Chepo, on old walls about town

4461. *Dactyloctenium aegyptium* Richt. Graminae

Chepo, on old walls about town

4 4462. *Paspalum microstachyum*

Graminae

Chepo, in waste places.

4 4463. *Smilax*

Smilax

4 4463<sup>a</sup>. *Cuscuta*

4464. *Cuscuta*

Chepo, in meadows.

4 4465. *Kyllinga odorata* Vahl.

Clavelito de sabana

Cyperaceae

Chepo, in pastures, very common.

4 4466. *Dichromena radicans* Cham. & Schl.

Cyperaceae

Chepo, in pastures, very common

4 4467. *Drymonia spectabilis* Mart.

Geraniaceae

Chepo, on old walls. Viny, corolla purplish red in margin, only white at base.



October 6-7, 1911.

4 4463

Smilacaceae Savana de Dormisolo

4463a. *Cuphea balsamifera* L. & S.

4 4468

Bignoniaceae Alto de Gasparatana, High Mammi. A vine, fl. purple

4 4469 - *Selaginella*

Selaginellaceae Forests around Gasparatana, High Mammi.

4470

Filices Forests around Gasparatana, High Mammi. Terrestrial.

4471

Filices Forests around Gasparatana, High Mammi. Terrestrial

4 4472 *Achimenes panamensis* (Seem.) Hemsl. Gesneraceae

Forests around Gasparatana, High Mammi. Corolla tube hairy, white; lobes lilac; fringed on margin.

4 4473 - *Phytolapha*

Forests around Gasparatana, High Mammi. Trees all stunted, growing on river flats and side of hills. Male flower said to reach 2 feet and over.

4 4474

Filices Forests around Gasparatana. Epiphytic.

4 4475 - *Rondeletia panamensis* D.C.

Rubiaceae Forests around Gasparatana, along R. Mammi, a small tree. Fl. white

October 6-7, 1911.

4 4476 - *Scaphyglottis unguiculata* Schltr.

Orchidaceae

In forests around Gasparasabana, high Mammi. Epiphytic. Fl. lilac.

4 4477

Ferns

In forests around Gasparasabana, high Mammi. Epiphytic.

4 4478 - *Asplenium formosum* Willd.

Filices

On rocks along Mammi R. at Gasparasabana.

4479

Filices

In forests around Gasparasabana, high Mammi. Epiphytic.

4 4480 *Ossaea diversifolia* (Vand.) Cogn. Melastomataceae.

Along Mammi R. at Gasparasabana, high Mammi. A low shrub. Corolla diminute, white. In cool places.

4 4481. *Euphea calophylla* C. B. Lythraceae

Along Mammi R. at Gasparasabana, on rocks. Fl. light purple.

4 4482 *Kohleria tubiflora* (Cav.) Gaertn. Geraniaceae

Along Mammi R. at Gasparasabana, in cool, rocky banks. Fl. red.

4 4483. *Lindenia rivalis* Benth.

Rubiaceae

Along Mammi R. at Gasparasabana, on rocks.

4 4484

Myrtaceae

On banks of Mammi R. at Gasparasabana. A shrub. Fl. white.



October

6-7, 1911.

4485. *Cyperus simplex* H.B.K.

Cyperaceae

On banks of Mammi R. at Gasparatana.

4486

Euphorbiaceae

Along Mammi R. at Gasparatana. A treelet with hanging branches.

4487. *Blechnum panamense* Lindau sp. n.

Acanthaceae

Along Mammi R. at Gasparatana, on rocks. Fl. lilac.

4488. *Odontonema flagellum* O. Kuntze

Acanthaceae

Along Mammi R. at Gasparatana, on shady banks. Fl. red.

4489. *Vitex Masoni* Pittier  
Guajado

Verbenaceae

Forests around Gasparatana, high Mamoni. A medium sized tree.  
Inflo. racemose. Cymella small, with narrower filae lobes.

4490. *Stelis*

Orchidaceae

Forests around Gasparatana, high Mamoni. Epiphytic. Fl. small, green.

4491. *Caria caudata* Standley

Leguminosae

Alto de Gasparatana, high Mamoni. A shrub. Fl. pale yellow.

4492

Filices

Alto de Gasparatana, high Mamoni. Epiphytic

4493. *Pithecolitium* (~~Laga~~) *profusum* Benth. Leguminosae  
n.v. Permil

Around Chapo, in ravines. A low, spreading tree. Fl. white.

October 8, 1911

4494. *Paspalum emersum* Humboldt & Boid. Graminae Chepo, in pastures about town.
4495. *Hyptis suaveolens* (L.) Poit Labiatae Sabana de Juan Cocho. Apparently only in well wooded savanna.  
Hierba de San Juan Fl. purple.
- 4496 Euphorbiaceae Sabana de Juan Cocho, on the outskirts and bushy places. Fl. white.
4497. *Cyperus diffusus* Vahl. Cyperaceae Chepo, in marshy places about town.
- 4498 *Burckesia pilosa* HBK. Malpighiaceae Sabana de Juan Cocho, on the <sup>woody</sup> outskirts. A small tree. Fl. yellow. Fr. orange yellow.
4499. *Byrsonima cumingiana* A. Juss. Malpighiaceae Sabana de Juan Cocho, on woody outskirts. A mid-sized tree, with  
Nance Colorado - Para dormir de casa, etc. Fruit edible spreading, depressed crown. Fl. yellow, turning to orange red.
- 4500 Graminae Sabana de Juan Cocho, in well wooded parts.
4501. *Olegiphila martinicensis* L. Verbenaceae Sabana de Juan Cocho, on woody outskirts. A viney shrub. Fl. pale yellow.
4502. *Pectis swartziana* Less. Compositae Sabana de Juan Cocho, very common.



October 8, 1911

4503. *Phoradendron rubrum* (L.) Griseb.

Leranthaceae

Sabana de Juan Cocho, epiphytic on trees of the wooded outskirts.

4504. *Hydrolea spinosa* L.

Hydrophyllaceae

Sabana de Juan Cocho, in wet, bushy places. Fl. purplish blue.

4505

blavellin de sabana

Compositae

Sabana de Juan Cocho, in wet grassy places. Fl. yellow, open only in morning, when the crown is quite flat.

4506. *Polygala angustifolia* H. B. K.

Polygalaceae

Sabana de Juan Cocho, in bushy outskirts. Fl. greenish or pinkish white.

4507

Vitaceae

Sabana de Juan Cocho, in bushy outskirts. Fl. yellowish.

4508. *Alibertia edulis* A. Rich.

Cruciferae

Rubiaceae

Sabana de Juan Cocho, on the outskirts. A shrub, fl. white.

4509. *Rhynchospora barbata* (Vahl) Kunth.

Cyperaceae

Sabana de Juan Cocho, common and untraced.

4510. *Melochia hirsuta* Cav.

Sterculiaceae

Sabana de Juan Cocho. Common. Fl. purple. Untraced.

4511. *Cordia chepensis* Pittier n. sp.

Borraginaceae

Sabana de Juan Cocho, common in bushy outskirts. Fl. white.

October 8, 1911

4512

Commelynaceae Chopo, in meadows about town. Fl. azure blue, closing at  $\pm 10$  am.

4513. *Coutarea hexandra* Schum.

Rubiaceae Sabana de Juan Bocho, in wooded outskirts.

4514

Smilacaceae Sabana de Juan Bocho, in wooded outskirts. Viny, spinose. Fl. greenish.

4515. *Paspalum multicaule*

Graminae <sup>Chopo</sup> Sabana de Juan Bocho.

4516. *Mesosetum*

Graminae Sabana de Juan Bocho.

4517. *Cassia oxyphylla* Kth.

Leguminosae Sabana de Juan Bocho, in wooded outskirts. Fl. yellow.

4518 *Phyllanthus nobilis* (L.f.) Muell.

Sabana de Juan Bocho, in wooded outskirts. Seeds azure blue. A small tree.

4519

Compositae Sabana de Juan Bocho, in bushy outskirts. Fl. yellow.

4520. *Melampodium divaricatum* (Rich.) D.C. Compositae

Sabana de Juan Bocho, in bushy outskirts. A shrub. Fl. yellow.



October 8, 1911

4521

Compositae

Sabana de Juan Cocho, in wooded outskirts. A shrub. Fl. large, yellow.

4522. *Lipocarpus sphaelata* Vahl/Kunth.

Cyperaceae

Sabana de Juan Cocho, in wet places.

4523. *Tridax procumbens* L.

Compositae

Sabana de Juan Cocho, in dry places around stones.

4524. *Eragrostis acutiflora*

Graminae

Sabana de Juan Cocho, in wet places along trails.

4525. *Paspalum clavuliferum* Wright

Graminae

Sabana de Juan Cocho, rare.

4526. *Panicum lepidulum* Hitch. & Chase.

Graminae

Sabana de Juan Cocho, rare.

4527. *Paspalum convexum* Humb. & Bpild.

Graminae

Sabana de Juan Cocho, rather common along trails

4528. *Finibristylis oliphylla* (Retz) Vahl.

Cyperaceae

Sabana de Juan Cocho, common in swampy places.

4529. *Torenia crustacea* (L.) C. B.

Scrophulariaceae

Sabana de Juan Cocho. Fl. purple. Forms little colonies.

4530. *Imbristylis miliacea* Vahl.

October 8, 1941

Cyperaceae Sabana de Juan Cocho, in swampy places

4531. *Isachne trachysperma*

Graminae Sabana de Juan Cocho, in wet places

4532. *Rynchospora micrantha* Vahl.

Cyperaceae Sabana de Juan Cocho, in wet places

4533. *Cyperus flavescens* L.

Cyperaceae Sabana de Juan Cocho, in wet places.

4534. *Syntherisma sanguinalis* Dulac.

Graminae Sabana de Juan Cocho.

4535

Gramineae Sabana de Juan Cocho.

4536. *Panicum pilosum* Sw.

Graminae Sabana de Juan Cocho, in shady outskirts

4537. *Piper villiramulum* C. & C.

Piperaceae Sabana de Juan Cocho, in bushy outskirts, a shrub, 1-1.20 high.

4538. *Calea prunifolia* H. B. K.

Compositae Sabana de Juan Cocho, in wooded outskirts. a viny shrub.



October

8-9, 1911.

4539. *Piper dumeticola panamense* C. DC.

Piperaceae

Sabana de Juan Cocho, in bushy outskirts, a low shrub.

4540.

Dilleniaceae

Sabana de Juan Cocho, in bushy outskirts. A vine. Fl. white.

4541 *Anguria warszewiczii* Hook. f. Cucurbitaceae

Sabana de Juan Cocho, in bushy outskirts. A vine. Fl. white.

4542

Malpighiaceae

Camino del Boticario, near Chapo. A climbing vine.

4543. *Rhynchospora eximia* (Nees) Breckl.

Cyperaceae

Camino del Boticario, in a pond.

4544. *Mimosa pilosa* Standley sp. n.

Leguminosae

Camino del Boticario, near Chapo, in meadow. Stems erect or ascending. Fl. lilac.

4545

Euphorbiaceae

Camino del Boticario, near Chapo, in swampy places. Fl. white.

4546

Euphorbiaceae

Camino del Boticario near Chapo, in swampy places. Fl. white.  
hairy4547. *Caperonia panamensis* Pan & H. Hoffm. sp. n. EuphorbiaceaeCamino del Boticario near Chapo, in swamp. Fl. white, leaves  
narrower, glabrous.

October 9, 1911.

4 4548. *Aeschynomene sensitiva* Sw.

Leguminosae

Camino del Boticario near Chepo, in damp meadows. Fl. yellow

4 4549 *Aeschynomene sensitiva* Sw.

Leguminosae

Camino del Boticario near Chepo, in pond. Fl. yellow.

4 4550. *Scirena umbellata* Rottb.

Cyperaceae

Camino del Boticario near Chepo, in pond.

4 4551. *Paspalum plicatulum* Michx

Graminae

Camino del Boticario near Chepo, in pond

4 4552. *Homalocenchrus hexandrus* D.K. Graminae

Camino del Boticario near Chepo, in pond.

4 4553 *Crestidium rufescens*  
Blanch.

Leguminosae?

Camino del Boticario near Chepo. A vine.

4 4554. *Utricularia*

Camino del Boticario, near Chepo, in pond. Fl. pink.

4 4555

Marsileaceae

Camino del Boticario, near Chepo, in pond.

4 4556

Alismataceae

Camino del Boticario, near Chepo, in pond. Fl. white, tinged with purple.  
not same as the one near Diablo Camp.



October 9, 1911

4557. *Eleocharis mutata* (L.) R. Br. Cyperaceae Camino del Boticario near Chepo, in pond.

4558. *Cyperus haspan* L. Cyperaceae Camino del Boticario near Chepo, in pond.

4559. *Eleocharis acicularis* (L.) R. Br. Cyperaceae Camino del Boticario near Chepo, in pond.

4560. *Castalia blanda* (Ney.) Nymphaeaceae Camino del Boticario near Chepo, in pond. Fl. white

4561. *Psychotria pinularis* Moq. & Sesse Rubiaceae Camino del Boticario near Chepo, in hedges. Fl. small, white.

4562. *Epidendrum stenopetalum* Klth. Orchidaceae Chepo, on Crescentia tree. Fl. pink.

4563. *Matayba glaberrima* Radl. Sapindaceae Chepo, in bushes. A small tree. Fl. white.

4564. Zingiberaceae Chepo, in neighboring, shady woods. Fl. yellow

4565. Fungi Ground Chepo, on dead leaves. In clusters, upper part brownish, darker in the center, remainder white.

4566

Fungi

Around Chepo, on leaf detritus. Grayish brown.

4567

Fungi

Around Chepo, on vegetable detritus. Orange yellow, cuplike.

4568

Fungi

Around Chepo, on vegetable detritus. No stem, pure white

4569

Fungi

Around Chepo, on vegetable detritus. Stem long and thin, hat  
grayish.

4570

Fungi

Around Chepo, on vegetable detritus. Orange red.

4571 - *Willia panamensis* Britt. & Rose, n. sp. *Cactaceae*Alto de Paragüitas, 4000m, trail to Upper Mamoni - Living plant  
sent to Dr. Rose.

October 23, 1911.

4572 - *Polygala longicaulis* H. B. K.*Polygalaceae*

Between La Capitana &amp; Chepo, in savannas along road. Fl. pink.

4573 - *Diodea teres* Walt.*Rubiaceae*Between La Capitana & Chepo, in savannas along road. Fl. small, single in  
axis. Corolla pinkish white.

4574

*Filices*Chepo, on *Cruciferae*.



4575

4576 - *Justicia carthagenensis* L.

4577 - *Cyperus giganteus* Vahl.

4578 - *Pachira villosula* Pittier  
Fruta de mono

4579 *Posoqueria* <sup>panamensis</sup> ~~latifolia~~ *Bombac.*  
Fruta de Muricélago; eaten by children

4580 *Stigmaphyllon puberulum*  
Juss.

4581 - *Bixa Orellana platycarpa* Warburg.

4582 - *Dimorphandra megistosperma* Pittier.  
Alcornoque

4583 *Oncidium pusillum* Rehb. f.  
Yemana Santa

October 23<sup>d</sup>, 1911

Dilleniaceae Along road between Chepo & La Capitana, in bushes. Fl. pale yellow.

Umbellaceae Along road between Chepo & La Capitana, in bushes. Pl. about 1<sup>m</sup> 20 high. Fl. purple, only a few at a time.

Cyperaceae Banks of Mammi R. near La Capitana.

B.

Bombacaceae Banks of Mammi R. below La Capitana. Often a partly tree, 50 m. in diameter & 25-30 m high. Petals salmon white or pinkish. St. and styles deep pink near end, paler below. Fr. ovoid, about 18 cm. long, 12 cm. diam. rich brown.

Rubiaceae Banks of Mammi R. A small tree. Fl. white. Fr. yellow. Photo.

Malpigiaceae Banks of Mammi R. near La Capitana. An herbaceous vine. Petals pinkish purple red inside, with a yellow fringe of veins, large yellow margin and a dark orange red center outside.

Bixaceae Banks of Mammi R. near La Capitana. A small tree, considered distinct of B. Orellana by the natives, who say the fruit is round, while it is oblong pointed in the latter.

Leguminosae Banks of the Mammi, in small groups, 5-8 together. Pods very large, 1-seeded, of a rich golden brown, and containing a red dye - Notes & Photos.

Orchidaceae Banks of Mammi near La Capitana, on limbs of a fallen tree. Fl. bright yellow.

October 23<sup>d</sup>, 1911

- 4584 *Xiraea faginea* (Sw.) Ndg. Malpighiaceae Banks of Mamoni R. near La Capitana. A woody vine, flowering in tops of very high trees. Petals yellow.
- 4585 *Drepanocarpus lunulatus* (L.f.) Mey. Leguminosae Banks of Mamoni R. near La Capitana. Forming long stretches of thicket in sunny places near the water. Fl. purple. Pod (not collected) flat many-seeded, about 3 cm. broad and 12 cm. long.
- 4586 *Sida spinosa* L. Malvaceae Along road between La Capitana & Chepo. tree. Fl. pale yellow.
- 4587 *Phaseolus longepedunculatus* Mart. Leguminosae Along road between La Capitana & Chepo. Fl. large, dull red.
- 4588 *Sironulaca* Compositae Along road between La Capitana & Chepo. Often 2<sup>m</sup> high. Plants ramose, *pyramidalis*.
- 4589 *Helicteres guazumifolia* H.B.K. Sterculiaceae Along road between La Capitana & Chepo.  
Guacimillo
- 4590 *Muntingia calabura* L. Sterculiaceae Along road between La Capitana & Chepo. A small tree. Fl. white.  
Pavito - Red berries edible
- 4591 *Buellneria carthagenensis* Jacq. Sterculiaceae Along road between La Capitana & Chepo. A vine. Fl. pale yellow.  
Rangai - No use
- 4592 *Paja cabazona* Gramineae Along road between La Capitana & Chepo.



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23<sup>d</sup> 1911

4593. *Borreria latifolia* (Aubl.) Schum.

Rubiaceae

Between La Capitana & Chepo, in rich meadows near the latter place. Fl. white

4594

Convolvulaceae?

<sup>Laguna</sup>  
~~Between~~ de Portala, near Chepo, trailing. Fl. white.

4595 *Ruellia*

Chenopodiaceae

Between La Capitana & Chepo, along road. Fl. large. *Centrosema*. corolla light purple or violet

4596. *Lida linifolia* Juss.

Malvaceae

Between La Capitana & Chepo, along road. Fl. yellow.

4597.

Between La Capitana & Chepo, along road. Fl. purplish white.

4598. *Borreria tenella* (H.B.K.) L. & G.

Rubiaceae

Between La Capitana & Chepo, along road. Fl. white.

4599. *Bradburya angustifolia* (Benth.) O. Ktze  
Baracucha de Sabana.

Leguminosae

Between La Capitana & Chepo. Fl. purple.

4600. *Limonanthemum Humboldtianum* Griseb  
Flor de Laguna

Laguna de Portala, near Chepo, on muddy ground, out of water

4601. *Eleocharis acicularis* (L.) R. Br.

Cyperaceae

Laguna de Portala, near Chepo.

October 24, 1911

4602. *Eleocharis mutata* L. R. Br.

Cyperaceae Laguna de Portala near Chepo.

4603

Commelinaceae Laguna de Portala near Chepo. Fl. azure-lue. Bracing

4604

? Laguna de Portala near Chepo. Fl. purple.

4605

? Laguna de Portala near Chepo. Fl. yellow.

4606 *Heliotropium nudatum*  
Sw.

Borraginaceae Laguna de Portala near Chepo. Fl. white

4607 *Aisanthera quadrata* Juss.

Melastomataceae Laguna de Portala near Chepo. Fl. pink.

4608

Syrphulariaceae Laguna de Portala near Chepo. Fl. pale blue or purplish.

4609

Convolvulaceae Laguna de Portala near Chepo. Fl. white.

4610. *Phyllanthus*

Euphorbiaceae Laguna de Portala near Chepo.



Octubre 24, 1911.

4611. *Oeschynomene sensitiva* Sw.

Leguminosae Laguna de Portala. Fl. yellowish brown

4612. *Borreria oeymoides* (Burm.) D.C.

Rubiaceae Laguna de Portala. Fl. white.

4613. *Paspalum orbiculatum* Pers.

Graminae Laguna de Portala

4614. *Panicum* <sup>*dichotomiflorum* Michx.</sup>  
~~*chlorotectum* Nees.~~

Graminae Laguna de Portala

4615. *Panicum laxum* Sw.

Graminae Laguna de Portala

4616. *Imbristylis miliacea* Vahl.

Cyperaceae Laguna de Portala

4617. *Cornutia grandifolia* (S. & Z.)  
Palo cuadrado; frega plato

Verbenaceae Laguna de Portala. A shrub. Fl. purple.

4618. *Ipomoea acariifolia*  
Campanilla (Deer.) R. & S.

Convolvulaceae Laguna de Portala. Fl. pink.

4619. *Melochia melissaeifolia* Benth.

Sterculiaceae Laguna de Portala. Fl. pinkish white.

October 25, 1911

4620. *Cuphea balsamifera* C. TS. Lythraceae

Laguna de Portela near Chopo.

4621. *Paspalum*

Gramineae

Laguna de Portela, in dry savana.

4622. *Paspalum multicaule*

Gramineae

Laguna de Portela in dry savana.

4623. *Pectis swartziana* Less.

Compositae

Laguna de Portela in dry savana. Olives. Fl. yellow.

4624. *Paspalum minus* Tourn.

Gramineae

Laguna de Portela, in dry savana.

4625. *Zornia diphylla* Pers.

Leguminosae

Laguna de Portela, in dry savana

4626. *Rynchospora barbata* (Vahl) Kunth.

~~Scrophulariaceae~~

Laguna de Portela, in dry savana. Fl. yellowish white.

4627. ~~*Dioscorea*~~ *Hyptis laetaniifolia* (Poir.) Schott  
Suspiro de savana

2

Laguna de Portela in dry savana. Fl. lilac. Prostrate

4628. *Pichras sapota*

Mamey

Sapotaceae

Laguna de Portela, in mall wood. Fl. greenish.



4629. *Xylopia*

Malagueto - Used only for fuel and said to burn readily when green.

4630. *Heliotropium**indicum* L.  
Flor de alacran4631. *Hyptis**brevipes* Poit.4632. *Paspalum altitum*4633. *Chamaecrista tamera* (L.).4634. *Anonopus compressus* Beauv.4635. *Polygala angustifolia* H. B. K.4636. *Xylinia brevifolia* Rottb.

4637

October 25, 1911

Annonaceae

Laguna de Portela in skirt of woods.

Borraginaceae

Laguna de Portela, in wet ground.

Labiatae

Laguna de Portela, in surrounding dry savanas. Fl. lilac. erect.

Graminae

Laguna de Portela, in wet places.

Leguminosae

Laguna de Portela, in dry savana. Fl. bright yellow.

Graminae

Laguna de Portela, in dry savana.

Polygalaceae

Laguna de Portela, in dry savana; fl. lilac or purple.

Cyperaceae

Laguna de Portela, in dry savana, forming dense little colonies not browsed by cattle.

Commelinaceae

Laguna de Portela, in dry savana. Fl. azure blue

Octubre

26, 1911.

4638. *Peltaea sessiliflora* (H. B. K.) Standley  
Guacimillo

Malvaceae

Laguna de Portala, invading the surrounding dry savanes.  
Not in flower. Sabana de Dormisolo.

4639. *Carrispermum calicabum* L. v. *microcarpa*

Leguminosae

Around Chepo, in dry savanes. Fl. white.

4640. *Phyllanthus*

Euphorbiaceae

Laguna de Portala, in wet, mud. forest, rare.

4641. *Diphyssa carthagenensis* Jacq.

Leguminosae

Sabana de Juan Corso. A small tree. Fl. yellow.

Cacique. Much used in native construction of houses.

4642. *Aristida jurellensis* Kth.

Graminae

Sabana del Tobito, near Chepo. Apparently scarce.

4643. *Guianilla plataniifolia* R. & P.  
Guipo

Bombacaceae

Sabana de Dormisolo, in surrounding woods. No so large as  
in high forest.

4644. *Didymopanax* <sup>Morototoni</sup> ~~perianthum~~ <sup>me</sup> Dec. & Pl.

Araliaceae

Sabana de Dormisolo, in surrounding woods. A mid-sized tree  
about 20 m. high. 30 m. at base, sparsely branched in a depend-  
ent form. Panicle very large.

Mangabe'. Usado para picas de casa.

Pava (S. Felix)

4645.

Urticaceae

Sabana de Dormisolo, in the outskirts. A little tree.

4646. *Paspalum densum*

Graminae

Sabana de Dormisolo. Not in season.



4647. *Paspalum virgatum* L.

4647a *Meibomia barbata* (L.) Ktze

4648. *Paspalum plicatulum* Mchx.

4649. *Manisuris ramosa*

4650. *Bradburga angustifolia* (Nenth) O. Ktze. Leguminosae

4651. *Polygala hygrophila* H. B. K.

4652. *Borreria tenella* (H. B. K.) G. & S.

4653. *Phryganocydia corymbosa* Bur.

4654. *Crotalaria pterocaulon* Desv.

4655. *Chamaecrista* <sup>*simplex* Standley sp. n.</sup> ~~*bracteata* (L.)~~

Setubre

26, 1911

Graminae

Papilionatae

Graminae

Graminae

Leguminosae

Polygalaceae

Rubiaceae

Bignoniaceae

Leguminosae

Leguminosae

Sabana de Dormisolo, not in season.

Sabana de Dormisolo.

Sabana de Dormisolo

Sabana de Dormisolo. A vine. Fl. very large, purish purple.

Sabana de Dormisolo. Dense, cylindrical head, in greenish lilac fl.

Sabana de Dormisolo. Erect. Fl. white.

Sabana de Dormisolo. A vine, common on high trees. Fl. vanilla perfumed, pink.

Sabana de Dormisolo. Fl. yellow. Ripe pods black.

Sabana de Dormisolo. Fl. yellow. Pods brown.

4656. *Hyptis lappacea* Benth. Labiales

Setaber 26, 1911.

Sabana de Dormisolo. Erect. Fl. white.

4657 *Rapanea pellucida-punctata* Myrsinaceae  
Mangle de sabana (Ceret) Mez

Sabana de Dormisolo. A small tree. Trunk  $\pm$  3 m. Bark  
smooth, grayish. Branch rounded depressed.

4658. *Pectis elongata* H.B.K.

Compositae

Sabana de Dormisolo. Erect. Fl. yellow.

4659. *Laportea*

Oleiv. No used except for the glue

Sabana de Dormisolo. A small tree. Wood sp.

4660. *Contoubea spicata* Aubl.

Gentianaceae Sabana de Dormisolo. Erect. Fl. white. Unisulke!

4661. *Phyllanthus*

Euphorbiaceae Sabana de Dormisolo.

4662. *Rhynchospora cymosa* (Nees) Vahl.

Cyperaceae Sabana de Dormisolo

4663. *Dioclea teres* Walt.

Rubiaceae Sabana de Dormisolo. Fl. white.

4664

Scrophulariaceae Sabana de Dormisolo. Fl. like *Senecio*?, lilac or pink



October 26, 1911.

4665

Scrophulariaceae Laguna de Juan Corso. Fl. small, purple.

4666

Convolvulaceae Laguna de Juan Corso, in dry places.

4667. *Schultesia heterophylla* Wieg.

Antiaraceae Lagunas de Juan Corso, etc. Fl. campanulate, pink, open only  
a.m.

4668 *Arisaema quadrata* Juss., *Melastomaceae* Laguna de Juan Corso, in wet places.

4669. *Spizelia*

Loganiaceae Laguna de Juan Corso, in wet places. R.

4670. *Bursera gummifera* L.  
Almacigo

Furseraceae Laguna de Juan Corso, in neighboring woods.  
Note pointed leaves.

4671. *Matayba glaberrima* Radlk.  
Palimonton

Sapindaceae Laguna de Juan Corso, in surrounding woods. A small tree.

4672. *Gleoharis geniculata* (L.) R. Br.)  
Junco

Cyperaceae Laguna de Juan Corso.

4673. *Chomelia brachyloba* Standley.  
Espino de mar

Rubiaceae Laguna de Juan Corso, in surrounding woods, a small tree.  
Lobe of corolla long & thin. Lobes small, acute. Fl. white.

4674. *Calea prunifolia* H.B.K.  
Arbolado de lija. Used pararegar

4675. *Isertia haenkeana* D.C.  
Canelito

4676.

4677. *Schultesia stenophylla* Mart.

4678

4679. *Limnocharis flava* Buchenau  $\beta$  minor Micheli

4680. *Baccharis*  
Sanalotodo

4681. *Euphorbia*

4682.  
Manca caballo

Octubre 26, 1911.

Compositae Laguna de Juan Corso, in surrounding bushes.

Rubiaceae Laguna de Juan Corso, in shady bushes.

Laguna de Juan Corso, in wet places.

Gentianaceae Laguna de Juan Corso. Fl. pink.

Hypericaceae? Laguna de Juan Corso.

Alismataceae Laguna de Juan Corso, in inundated places.

Compositae Laguna de Juan Corso, in bushes.

Euphorbiaceae Laguna de Juan Corso.

Flacourtiaceae Laguna de Juan Corso. A small, thorny tree. Fl. yellow.



Octubre 26, 1911.

4683. *Vitex floridula* A. Rich. & Walp. Verbenaceae  
Guajádo - Usado para piegas.

In woods around sabanas, Chepo. A tree with straight trunk  
grayish white bark, striated longitudinally. ~~same as 4489?~~

4684. *Genipa Caruto* H. B. K.

Rubiaceae

Tagua - Una sápturu-uála - sápturu, <sup>o de los bagam.</sup> su fruit.

La madera se usa para pie' derecho de punta que es el lado de la vequenza.

4685. *Byrsonima buringiana* A. Juss.

Malpighiaceae

Nance blanco.

In wood around sabanas, Chepo. Higher than n° 4499, with white  
wood. Brown rather elongate.

4686. *Crotalaria stipularia* Desv.

Leguminosae

Sabanas de Dormisolo.

4687. *Mesosetum*

Graminae

Sabanas de Dormisolo.

4688. *Lasiacis globosa* Hitchc.

Graminae

Around Chepo, in bushes; long ramose culms.

4689

Hierba de gallinazo.

Solanaceae

Around Chepo, in meadows; fl. white.

4690. *Burchardia cornifolia* HBK. Malpighiaceae  
Cerezo de monte.

Camino del Boticario. A small tree. Fl. yellow.

4691. *Cratogeomys*

Banks of R. Mamoni, at el Boticario. Fl. white.

Octubre 27, 1911

4692. *Spondias purpurea* L.  
Ciruelo. Used for fence posts in fences

Anacardiaceae Camino del Boticario, near Chepo. A tree. Fl. red.

4693. *Paspalum virgatum* L.

Graminae Along rio Mamoni, near Chepo.

4694. *Eleusine indica* Gaertn.

Graminae Along rio Mamoni, near Chepo.

4695. *Panicum fasciculatum* Sw.

Graminae Along rio Mamoni, near Chepo.

4696. *Panicum trichoides* Sw.

Graminae Along rio Mamoni, near Chepo

4697.

Zingiberaceae Camino del Boticario, ad fosas. Fl. white

4698

Musaceae Camino del Boticario. Fl. terae.

~~4699~~

4699 *Banisteriopsis argentea*  
(H.B.K.) C.B. Rob.

Malvaceae Camino del Boticario. A vine with pink flowers.

4700 *Prestonia ipomoeaefolia*  
A.P.C.

Apocynaceae Camino del Boticario. A vine. Fl. yellow.



Karatas  
4701. Bromelia ~~Bingulii~~ L.

Piro. Plant used for live fences. Fruit aciculate, used for  
"frescos". buna = pi.

4702.

4703 Bromelia ~~Bingulii~~ L.  
Piñuela

4704

Plaja de culebra (Photo)

4705 Arthrostemma ~~campanulata~~  
Hierba de agua (Vand.) Treava

4706. Entada polystachya (Jacq.) D.C.

4707. Olmedia aspera R. & P.

4708. Piper marginatum Jacq.  
Hinojo

4709. Piper auritum H.B.K.  
Hinojo macho

Octubre 29-30, 1911.

Bromeliaceae

Filices

Bromeliaceae

Cactaceae

Melastomataceae

Leguminosae

Moraceae

Piperaceae

Piperaceae

Around chepo in fences. Not seen wild. Photos. Ripe fruits  
elongate, covered with brown, shaggy, coarse hairs and bearing persistent  
calyx. Seeds collected

Around chepo, in bushes. Climbing.

Around chepo, in fences & bushes. Ripe fruits woid, glabrous, greenish  
yellow and rather sweet when ripe. Photos.

Along R. Mamoni above El Boticario. A shrub, with fine needles.  
Sepals 3, range in margin, greenish yellow at center. Petals red orange. Ripe  
fruits bright yellow. Flesh mirabelle colored. <sup>very acid or sour</sup> Ripe, black seeds in each of two,  
with an 8th imperfect, in 1.

Along R. Mamoni above El Boticario. A weed.

Along R. Mamoni above El Boticario. A vine. Fl. white.

Along Charare' R. A small tree. Fl. white. Limbs hanging.

Along Charare' R., in clearings

Along Charare' R., in clearings.

4710. *Chlorophora tinctoria* Gaudich.  
Mora

4711

4712. *Peperomia ciliolibractea* C. DC.

4713. *Begonia chepensis* C. DC.  
Churto, lavita de perro.

4714. *Sauvagesia erecta* L.

4715

4716

4717

4718. *Gleria melaleuca* Ridd.

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Moraceae Along Charare' R. - A tree, but seen only seedling.

Stenaceae Along Charare' R. A shrub, subligane. Fl. yellow. Fr. red.

Piperaceae Along Charare' R. on old rotten, tree trunks.

Bignoniaceae Along Charare' R. in wet places

Violariaceae Along Charare' R., on rocks. Fl. white.

Filix Along Charare' R. on rocks.

Myrtaceae Along Charare' R. - A shrub. Fl. white

Scrophulariaceae Along Charare' R. on rocks. Fl. white.

Cyperaceae Along Charare' R., on rocks.



4719. *Paspalum Lloydii*

October 29-30-1911.

Gramineae Along Charare' R., above Chipo.

4720

Manita de peña. Used in baths to cure erysipela.

Selaginella Along Charare' R., in rocks.

4721

Filices Along Charare' R. in rocks.

4722. *Dichromena radicans* Hb. d. Cham.

Cyperaceae Along Charare' R., in rocks.

4723. *Aphelandra glabrata* Willd.

Acanthaceae Along Charare' R., in dark forest. Fl. red.

4724

Araceae Along Charare' R., in rocks, in dark places.

4725 *Isacorea compressa*  
(HBK.) Staudl.

Myrsinaceae Along Mamoni R., above Boticario. Fl. blanches. Fr. black.

4726. *Odontonema longifolium* O. K.

Acanthaceae Along Mamoni R., above Boticario. Fl. red.

4727. *Polygala paniculata* L.

Polygalaceae Along Mamoni R., above Boticario. Fl. pink.

October 29.30, 1911.

4728. *Impatiens*?

Along Mamoni R., above el Boticario. Fl. greenish. A shrub.

4729.

Urbeyaceae Along Mamoni R., above el Boticario. A milky vine. Petals white; crown purple.

4730.

Compositae Along Mamoni R., above el Boticario. Fl. white.

4731. *Erythrina rubricarnea* H.B.K.  
Ramil?

Leguminosae Along Mamoni R., above el Boticario. Fl. red.

4732.

Aristolochiaceae Along Mamoni R. above el Boticario.

4733. *Blechnum panamense* Lindau sp. n. *Acanthaceae* Along Mamoni R. above el Boticario. Fl. purple.

4734. *Panicum barbinode* Trin.  
Hierba parada

Graminae Along Mamoni R., above el Boticario.

4735

Solanaceae Along Mamoni R., above el Boticario. Forming large colonies in sandy beaches. Fl. white.

4736. *Paullinia alata* Don.

Sapindaceae Along Mamoni R., above el Boticario. A vine. Fl. white.



November 1-2, 1911.

4737. *Malachra alceifolia* Jacq.  
Malva. Same uses as true Malva.

Malvaceae

Chepo. Around houses. 1-2 m. high. Fl. yellow.

4738. *Jatropha gossypifolia* L. v. *elegans* M. Arg.  
Frailecillo

Euphorbiaceae

Chepo, in waste places, around houses. Fl. dark purple.

4739. *Jatropha Curcas* L.

Euphorbiaceae

At times a shrub 2-3 m. high, but mostly herbaceous here.

Coquillo. Seeds are an emetic vomitive and  
drastic. Used for live fences.

Euphorbiaceae

Chepo, forming colonies in village. Fl. greenish.

4740. *Jatropha ~~adactylophylla~~* Ba. & K. Hoffm. n. sp.  
Ortiga de sabana - Buna: take.

Euphorbiaceae

Chepo in meadows and around houses. Fl. white.

*Guaripile* in Venezuela

4741. *Dioclea guianensis* Benth.

Leguminosae

Sabana del Jagüito near Chepo, on trees on outskirts. Floral  
spikes long and erect. Fl. violet.

4742. *Paspalum plicatulum* Michx.

Graminae

Sabana del Jagüito, near Chepo.

4743

Scrophulariaceae

Sabana del Jagüito, near Chepo. Small. Fl. lilacinae.

4743a. *Polygala angustifolia* H. B. K.

4744. *Cleocharis nodulosa* (Roth) Schult.

Cyperaceae

Sabana del Jagüito, in wet places.

4745. *Phaseolus gracilis* Poepp.

Leguminosae

Sabana del Jagüito, on dry ground. Fl. brick red.

= 4587?

4746. *Cassia*  
*Frijolillo redondo.*

4747

4748. *Tabernaemontana grandiflora* Jacq.

4749. *Chamaecrista stenocarpa* (Vog.) ?

4750. *Tumia erecta* L.

4751. *Mesosetum*

4752. *Gleoharis mutata* (L.) R. Br.)

4753. *Aristida jirullensis* Kth.

4754. *Drepanocarpus microphyllus* Mez

November 2, 1911.

Leguminosae Sabana del Jagüito, near Chepo. Fl. yellow. Forming often invading colonies.

Leguminosae Sabana del Jagüito. Fl. purple. Plant prostrated.

Apocynaceae Sabana del Jagüito. A small tree,  $\pm$  3m. high, with flat crown.

Leguminosae Sabana del Jagüito. Fl. yellow.

Sabana del Jagüito. Petals 4, yellow, caducous. Grows in swamps.

Graminae Sabana del Jagüito.

Cyperaceae Sabana del Jagüito, in swamps.

Graminae Sabana del Jagüito, in dry places.

Leguminosae Sabana del Jagüito. A thorny vine, with large, spreading racemes of purple flowers.



November

H-6, 1911.

4755. *Trichilia unifoliolata* Benth & Standl.

Sierra del Jagüito near Chepo, on the outskirts. A low tree, ramified from the base. Petals 5, white. Stamens 10. Fr. 3-lobed.

4756. *Echites microcalyx* A. DC. Apocynaceae

Sierra del Jagüito near Chepo. A vine. Fl. reddish brown in center, tips of corolla yellow.

4757. *Ficus*

Moraceae

In woods around Chepo. A small tree.

4758. *Jumiea suffruticosa* L

Along paths around Chepo. Petals 4, yellow.

4759. *Serjania Seemannii* Br. & Planch. Sapindaceae

Around Chepo. A vine climbing high on trees. Racemes erect. Fl. white. Wood resinous. Piece of basal trunk.

4760. *Minusa pudica* L.

Leguminosae

Around Chepo, in meadows. Forming colonies. Apparently not injured.

4761. *Meibomia supina* (Lo.) Britton

Leguminosae

Around Chepo, in meadows.

4762. *Platymiscium dubium* Pittier n. sp. Leguminosae  
Quira

Around Chepo, in woods near summit.

4763. *Lafourea punicifolia* DC.

Amarillo de fruto

Around Chepo. A tree, medium size, with straight trunk. Fl. in terminal or spathate racemes. Calyx early caducous. Corolla bell-shaped, greenish yellow. Stamens numerous. Very discoid, multilocular.

November 7, 1911.

4764. *Andira inermis* H.B.K. ~~Andira~~ Cocú

Leguminosae Chapo, in surrounding woods. A low tree, with flat crown and numerous, erect racemes of purple flowers.

4765. Bálamo

Leguminosae Chapo, an isolated tree in village. Said to be frequent in woods. A medium sized tree with oblongate <sup>trunk</sup> crown, dividing at  $\pm$  2m. in several large, upright limbs. Branches  $\pm$  horizontal or ascending.

4766 Bejuco de Tsango (Chango), much used in basketry

Bignoniaceae Chapo, in surrounding woods.

4767 Ortiga

Urticaceae Chapo, around houses.

4768. *Eragrostis amena* Presl.

Graminae Sabana de Portela, along road.

4769 *Andira inermis* H.B.K. ~~Andira~~ Cocú

Leguminosae Sabana de Portela in woods. See above.

4770 *Casahuate arguta* H.B.K.

Flacourtiaceae Sabana de Portela, in woods. Fl. white. A small tree.

4771. *Serjania rhombea* Radl.

Sapindaceae Sabana de Portela, climbing on bushes. Fl. white.

4772 *Pithecolobium hymenaeifolium* Benth.

Leguminosae Near La Capatana, along Chapo road. A low spreading bush. Fl. white.



4773. *Phyllanthus*

November 11, 1911.  
Euphorbiaceae

Culebra, in waste places around houses.

4774.

*Colubrina heteroneura* (Gray) Steud.

Plaguntiacae

Culebra, a small tree in meadows. Fl. white. Oct. 20, 1911.

4775. *Corchorus hirtus orinocensis* Schum. Tiliaceae

Culebra, in waste place. Subligulate shrub; fl. yellow.

4776. *Xiphiidium caeruleum* Aubl.

Haemodorraceae

Shady hills around Culebra.

4777. *Coix Lacryma Jobi* L.

Graminae

Culebra in waste places

4778

*Schrockaea cupheoides* (Benth.) Cogn.

Melastomataceae

Culebra, on talus along hilly roads. Fl. pink.

4779. *Corchorus siliquosus* L.

Tiliaceae

Culebra, in waste places. Fl. yellow.

4780. *Tobralia epiphytica* Schltr.

Orchidaceae

Culebra, Mrs. Rousseau. Fl. yellow.

4781.

Orchidaceae

Culebra. Mrs. Rousseau. Fl. golden yellow.

4782. *Physalis angulata* L.

Solanaceae Culebra, in waste places. Oct. 1911.

4783. *Erotaria guatemalensis* Benth.

Leguminosae Culebra, in waste places. Oct. 1911.

4784 *Eclipta microcalyx* A. DC.

Nov. 12, 1911  
Apocynaceae Around Gamboa, climbing on trees. A vine, fl. greenish yellow.

4785. *Borreria spinosa* (L.) G. & S.

Rubiaceae Around Gamboa, in meadows. Fl. white

4786. *Indigofera mucronata* Sprng.

Leguminosae Around Gamboa, in dumps. Fl. red.

4787. *Pleurothallis marginata* Lindl.

Orchidaceae Around Gamboa. Epiphytic on *Crescentia*. Fl. yellow.

4788. *Mucuna Andreana* Micheli

Leguminosae Around Gamboa, in bushes. A vine fl. hanging on peduncles up to 2m. long. Petals salmon purplish yellow.

4789 *Panicum laxum* Sw.

Gramineae Around Gamboa, in meadows.



4790. *Panicum zizanioides* H. B. K.

4791

4792. *Chaetochloa inarvris* Scribn.

4793. *Mentzelia aspera*

4794 *Cuphea calophylla* C. & S.

4795. *Urena lobata* L.

4796

4797

*Schwarckaea eupheoides* (Benth.) Cogn.

4798. *Panicum trichanthum* Nees

November 12, 1911.

Graminae Around Gamboa, in bushes.

Euphorbiaceae Around Gamboa, in meadows.

Graminae Around Gamboa, in meadows.

Loasaceae Around Gamboa, on dumps along railroad.  $\pm$  1 m. high. Fl. yellow.

Lythraceae Around Gamboa, in meadows. Suffrutescent.

Malvaceae Around Gamboa, on dumps. 1-1<sup>m</sup> 50 high. Pet. pink. The fl. opens early in the morning, but is closed at 5 pm., at least on sunny days. It is common on the dumps.

Caryophyllaceae Around Gamboa, in meadows. Fl. white. Infl. erect.

Malvaceae Around Gamboa, in shady places, along bushes, on river banks, etc. Fl. pink

Graminae Around Gamboa, in bushes.

November 12, 1911

4799 *Cissampelos diversifolia*  
(Naud.) Cogn.

Melastomataceae

Around Gambia, on grassy river banks. Forming low, rounded  
bushes. Fl. small, pink.

4800

Liliaceae

Around Gambia. A vine.

4801. *Apeiba Libourbii* Aubl.

Liliaceae

Around Gambia. A tree. Fl. yellow.

4802

Liliaceae

Around Gambia. A vine. Fl. greenish.

4803

Liliaceae

Around Gambia. A vine. Fl. purplish.

4804. *Cupania sylvatica* Seemann.

Sapindaceae

Around Gambia. A small tree. Fl. white, caducous.

4805 *Cissampelos sphaerocarpa*  
Cogn.

Cucurbitaceae

Around Gambia, in gravel dumps. Fl. yellow.

4806. *Panicum maximum* Jacq.

Graminae

Around Gambia, in meadows.

4807. *Panicum barbinode* Trin.

Graminae

Around Gambia, in meadows.



November

4808. *Meibomia cajanifolia* (HBK.) Leguminosae  
Rusby4809. *Psidium friedrichsthalianum* (Berg) B.H. Myrtaceae4810. *Gonolobus dubius* Pittier Asclepiadaceae4811. *Lihea platypetala* A. Rich. Tiliaceae4812. *Astrocaryum* Palmae  
n.v. Chunga4813. *Attalea cohune* Mart. PalmaeCorozo gallinazo, palma real. Note appendix of leaflets below rachis.  
Corozo de guingo. Quite very fine, used para purgante Photos4814. *Blaeis melanococca* Gaertn. Palmae  
Corozo colorado; morizo colorado.4815. *Gyathula* Amaranthaceae4816. *Macradenium brassavolae* Rehb. fil. Orchidaceae

1911.

Gamba, on gravel dumps. Stems up to 3m. high., ramified at end.  
Fl. small, lilac.

Gamba, in shady bushes. A shrub. Fl. large. Pet. and st. white

Gamba, creeping in bushes. Milky. Fl. large. Pet. green, with a narrow brownish margin.

Culebra. A rather small tree, 18m high, with ovate crown. Blooms for 2<sup>d</sup> time in November. Fl. large, white.

Around Culebra, always isolated. Chorny trunk (Photo), straight, 5-8m high.

Base of leaves <sup>& rachis</sup> ~~thick~~ <sup>aculeate</sup>. Leaf-segments whitish beneath, aciculate on margins (Photo).Floral axis erect. Fr. racemes hanging (Photo). Fruits vivid, dull red, apiculate (Photo).  
5-6mm. long

Around Culebra, characteristic for Pacific slope. Trunk rather low (?), naked at

base in old specimens, covered with base of leaves in younger. Leaves 6.50 and more in length, base leaflets 86-90cm. long, 3cm. broad. Fruit branches very large, hanging.

Around Culebra. Trunk creeping and then erect. Base of leaves adhering, aciculate on margin. Racemes of fl. hidden between bases of leaves. Fruits red. Photos.

Around Gamba in waste, gravelly places. Sepals &amp; outer petals reddish purple

The fruits along Gamba division (Verner); Sepals &amp; outer petals vinose purple with yellow margins. Labellum &amp; appendages white. Long lingual appendix.



4817. *Pogonopus speciosus* (Jacq.) Schum. Rubiaceae

Road from Empire to Chorrera, near Empire (Dubis). A small tree, bracts  
bright red, Corolla id. Nov. 27, 1911.

4818. *Sobralia decora* Batem. Orchidaceae

In forest along Gamboa diversion (Vernon). Stems 2-3 m. long. Fl. pink.  
Nov. 27, 1911

4819. *Sicelydium tannifolium* (HBK.) Liliaceae  
Cope.

On bushes around Gamboa. Fl. greenish. " " "

4820. *Malachra fastiata* Jacq. Malvaceae

Waste places about Culebra. 1 m. - 1.50 high. Fl. pale pink.

4821. *Pereskia panamensis* Rose Eactaceae

Culebra, cultivated in Mrs Gaillard's garden. Bushy, succulent plant,  $\pm$   
1.50 high. Branchlets brittle. Needles reddish pink at base. Petals scarlet  
red. Filaments pink, anthers & style white. Nov. 30, 1911.

4822. *Gommaridium ochroleucum* Lindl. Orchidaceae

Culebra; Mrs Gd's collection. collected in this vicinity. Fl. white.

4823. *Epidendrum Stamfordianum* Batem. Orchidaceae

Culebra; Mrs Gd's collection, from the neighborhood. Calyx and outer petals yellowish  
green, dotted with purple, labellum yellow with a few pink spots. Floral stems  
growing from base of bulb.

4824. *Epidendrum cochleatum* L. Orchidaceae

Culebra, Mrs Gd's coll. from the neighborhood. Calyx & outer petals greenish  
yellow. Labellum: base yellow outside, yellow with purple lines inside; the rest  
purple.

4825. *Gonympium* Malvaceae

Culebra. Fl. yellow. 4 locks. Seeds sent Mr. Cook.



4826-

Commelinaceae

Around Culebra in waste place, ascending. 50 cm. high. Fl. white.

Nov. 29<sup>th</sup>

4827. *Meibomia barbata* (L.) Ktze

Leguminosae

Around Culebra, in waste places. 60-1<sup>m</sup> high, erect. Fl. purple.

4828. *Chamaecrista patellaria* (D.C.)

Leguminosae

Around Culebra, in waste places. 30-40 cm. high. Fl. yellow.

4829. *Jatropha*

n.v. Ortega

December

3, 1901.

Euphorbiaceae

Around Agua Dulce, in savannas. Flw. larger and leaves somewhat differently divided from the *efrago* species.

4830

Compositae

Around Agua Dulce, in savannas & waste places.

4831. *Waltheria americana* L.

Früga plato.

Sterculiaceae

Around Agua Dulce, in savannas & waste places. Fl. yellow.

4832. *Borreria latifolia* (Aubl.) Schum.

Rubiaceae

Around Agua Dulce, along hedges. Fl. pale purple.

4833. *Melochia melissaeifolia* Benth.

Sterculiaceae

Around Agua Dulce, in ditches, growing in water. Fl. small, pale pink.

4834 *Hyptis suaveolens* (L.) Poit. Utriculariaceae

Around Aguadulce. In waterditches. Fl. pink.

4835. *Gida acuta* L. fil.?

Malvaceae

Around Aguadulce, in savanas. Fl. yellowish white, open in middle of sunny day, closed evenings & evenings.

4836. *Pittacanthus Schiedeanus* Bickl. (Corantheaceae)

(Manjojo, monjero, the last name because of a bird called monje or monjo being fond of the ripe fruits. Naipojo)

Around Aguadulce, in Bursera. Corolla red, caducous.

4837. *Stylosanthes humilis* H.B.K.

Leguminosae

Around Aguadulce. Fl. yellow. Pl. decumbent

4838. *Eragrostis Vahlia*

Graminae

Around Aguadulce, in savanas.

4839. *Bidens*

Compositae

Around Aguadulce. Fl. yellow. 1-1.50 high.

4840. *pitumona*?

*Cithocolobium parvifolium* (Willd.) Benth.

One of the usual trees in savanas

Leguminosae

Around Aguadulce. A low tree, with flat crown, in savanas. Fl. pinkish white

4841

Convolvulaceae

Around Aguadulce, in savanas. Fl. azure.

4842

Convolvulaceae

Around Aguadulce, in savanas. Corolla pale pink, dark purple at bottom.



4843. *Sida ciliaris* L.

December

3<sup>d</sup>, 1911.

Malvaceae

Around Aguadulce, in savanas. Creeping. Fl. rather large, reddish orange.

4844

Anonaceae

Around Aguadulce, on skirts of savanas.

4845. *Anacardium occidentale* L.

Anacardiaceae

Around Aguadulce, in orchards, hedges, etc.

Marañon

4846. *Zornia diphylla* Pers.

Leguminosae

Around Aguadulce, in savanas.

4847. *Simisia polycephala* Benth.

Compositae

Around Aguadulce, on skirts of savanas. Fl. yellow.

4848

Rubiaceae

Around Aguadulce, in savanas. Fl. small, axillary, pinkish white.

4849. *Andropogon fastigiatus* Sw.

Graminae

Around Aguadulce, in savanas.

4850. *Aristida jruellensis* Kth.

Graminae

Around Aguadulce, in savanas.

4851. *Eragrostis amoena* Presl.

Graminae

Around Aguadulce, in savanas

4852. *Pectis swartziana* Less.

December

3<sup>d</sup>, 1911

Compositae

Around Aguadulce, in savanas. Dwarf plant, leaves obovate, pale underneath.

4853. *Pectis capillaris* L.

Compositae

Around Aguadulce, in savanas

4854. *Chamaecrista tagera* (L.)

Leguminosae

Around Aguadulce, in savanas. Fl. small, brownish yellow.

4855

Euphorbiaceae

Around Aguadulce, in savanas.

4856. *Meibomia triflora* (L.) Ktze.

Leguminosae

Around Aguadulce. Fl. small, purple.

4857

Trochularium

Around Aguadulce. Fl. like *Lisiera*, pale purple

4858. *Melochia hirsuta* Cav.

Sterculiaceae

Around Aguadulce. Small, decumbent. Fl. purple

4859. *Syntherisma filiformis* Nash.

Graminae

Around Aguadulce, in savanas.

4860. *Cordia cylindrostachya* R. & S.  
Palo negrito

Borraginaceae

Around Aguadulce, in savanas. Bushy, fl. white.



4861. *Mimosa pudica* L.

4862. *Mimosa pusilla* Benth.

4863. *Aeschynomene hystrix* Pir.

4864. *Eragrostis amena* Presl.

4865. *Sporobolus ciliatus*

4866

4867. *Polygala angustifolia* H. B. K.

4868. *Andropogon brevifolius* Sw.

4869. *Fimbristylis diphylla* Vahl

December

3<sup>d</sup> 1911-

Leguminosae

Around Agua Dulce, in savanas.

Leguminosae

Around Aguadulce, in savanas.

Leguminosae

Around Agua dulce, in savanas, Fl. yellow.

Gramineae

Around Aguadulce, in savanas.

Gramineae

Around Aguadulce, in savanas.

Gramineae

Around Aguadulce, in savanas

Polygalaceae

Around Aguadulce in savanas

Gramineae

Around Aguadulce, in savanas

Cyperaceae

Around Aguadulce, in savanas.

December

3<sup>d</sup> 1911.

4870 *Sauvagesia tenella* Lam. ~~Heliotropaceae~~

<sup>in savann</sup>  
Around Aquadules. Fl. pale pink, not caducous.

4871 *Paspalum multicaule*

Gramineae

Around Aquadules, in savannas

4872 *Oxonopus compressus* Beauv.

Gramineae

Around Aquadules, in savannas

4873

Gramineae

Around Aquadules, in savannas

4874 *Diodia rigida* Cham. & Schl.

Rubiaceae

Around Aquadules, in savannas. Corolla large, infundib. ul., pinkish white.

4875 *Polygala variabilis* H. B. K.

Polygalaceae

Around Aquadules, in savannas. Herbar. Fl. pinkish purple.

4876 *Polygala hygrophila* H. B. K.

Polygalaceae

Around Aquadules, in savannas. Fl. pink.

4877 *Andropogon fastigiatus* Sw.

Gramineae

Around Aquadules, in savannas.

4878 *Curatella*

Turneraceae

Around Aquadules, in savannas. Fl. large, yellow.



December

1911.

4879

Convolvulaceae

Around Aquadules, in savanas. Dwarf. Leaves roundish, very hairy. Fl. deep blue.

4880

Gentianaceae?

Around Aquadules, in savanas. Fl. long tubulose, dark purple.

4881. *Borreria spinosa* (L.) C. & S.

Rubiaceae

Around Aquadules, in shady places, outskirts of savanas. Fl. white

4882 *Bumelia crassifolia* (L.) DC. Malpighiaceae

Around Aquadules. A small tree in woody clumps in savanas.

4883. *Andropogon apricus*

Gramineae

Around Aquadules, in savanas.

4884. *Peltaea sessiliflora* (H. B. K.) Standley. Malvaceae

Around Aquadules, in savanas. Fl. yellow.

4885. *Lida jamaicensis* L.

Malvaceae

Around Aquadules, on outskirts of savanas. Fl. white, bottom purple.

4885<sup>2</sup> *Lida rhombifolia* L.

Malvaceae

4886

Convolvulaceae

Around Aquadules. Fl. blue, rather large.

4887. *Oplismenus cristatus* Presl.

Gramineae

Around Aquadules, in shady place of the outskirts of savanas.

December 3-4-1911

4888

Cuingro-Cuingara. - Photo. Flowers in alcohol. (small tub). *Asclepiadaceae*

Around Aguadulce, in savannas. A vine, climbing on *Clusia*. Fl. small, deep purple. Fr. verrucose.

4889. *Phaseolus longepedunculatus* Mart.

*Leguminosae*

Around Aguadulce, in savannas. Fl. dull red.

4890. *Piptadenia flava* (Spreng) Benth.

*Leguminosae*

Around Aguadulce, along roads. Fl. greenish yellow.

4891. *Eragrostis acutiflora*

*Graminae*

Around Aguadulce, in swampy ground.

4892. *Oryza sativa* L.

*Graminae*

Around Aguadulce, in swampy ground

4893. *Cyperus flavescens* L.

*Cyperaceae*

Around Aguadulce, in swampy ground

4894 *Rynchospora hirsuta* Vahl.

*Cyperaceae*

Around Aguadulce, in swampy ground

4895. *Lipocarpus sphaelata* (Vahl) Kunth

*Cyperaceae*

Around Aguadulce, in swampy ground

4896. *Gleichenia sulcata* (Roth.) Nees

*Cyperaceae*

Around Aguadulce, in swampy ground.



4897

4898. *Rynchospora hirsuta* Vahl.4899. *Glechoma sulcata* (Roth) Des.4900. *Eragrostis Vahl.*

4901

4902. *Calea Pittieri* Rob. & Greenm.4903. *Quania*4904 *Marsdenia*

Cuíngara, Cuínbara -

4905. *Justicia carthagenensis* L.

December

4<sup>th</sup>, 1911

?

Around Aguadulce, in swampy ground. Succulent. Fl. white

Cyperaceae

Around Aguadulce, in swampy ground

Cyperaceae

Around Aguadulce, in swampy ground

Gramineae

Around Aguadulce, in swampy ground

Gramineae

Around Aguadulce, in lagoon.

Compositae

Around Aguadulce, in bushes. A semi-climbing shrub.

Around Aguadulce, in bushes. A vine

Apocynaceae

Around Aguadulce, in bushes. A milky vine. Fl. <sup>corolla lobes</sup> urceolate, purple above, tube green outside. Flowers in dense axillary clusters

Acanthaceae

Around Aguadulce. Fl. purple-violet.

December 4, 1911.

4906 *Arisanthera quadrata* Juss.

Melastomataceae

Around Aguadulce, in lagoons & swamps. Fl. pink.

4907

Scrophulariaceae

Around Aguadulce, in lagoon. Fl. white at base, purple at tips.

4908 *Hymenachne amplexicaulis* Nees.

Graminae

Around Aguadulce, in lagoon

4909. *Homalocenchrus hexandrus* D. K.

Graminae

Around Aguadulce, in lagoon

4910. *Andropogon fastigiatus* Sw.

Graminae

Around Aguadulce, in dry ground.

4911 *Sporobolus asarifolia* (Ager) R. & S.  
Batatilla de cienaga.

Convolvulaceae

Around Aguadulce, in swampy ground. Stems short. Fl. purple-violet

4912. *Bradburya pascuorum* (Benth.) O. Ktze

Leguminosae

Around Aguadulce, in swampy ground. Fl. purple

4913. *Rynchospora cyperoides* (Sw.) Mart.

Cyperaceae

Around Aguadulce, in lagoon.

4914. *Paspalum plicatulum* Michx.

Graminae

Around Aguadulce, in savannas.



4915

December 4, 1911.  
 Alismataceae

Around Aquadules, in lagoon. Fl. white.

4916. *Sacciolepis Myuros* Chase.

Gramineae

Around Aquadules, in lagoon

4917. *Lachne trachysperma*

Gramineae

Around Aquadules, in lagoon

4918. *Aeschynomene sensitiva* Sw.

Leguminosae

Around Aquadules, in swampy places.

4919

Around Aquadules

4920. *Sacciolepis Myuros* Chase

Gramineae

Around Aquadules, in swampy places

4921. *Rhynchospora hirsuta* Vahl.

Cyperaceae

Around Aquadules, in marshy places

4922. *Cyperonia panamensis* Pax. & Hoffm.?

Euphorbiaceae

Around Aquadules, in swamp. Fl. white

4923. *Rhynchospora barbata*

Cyperaceae?

Around Aquadules, in swampy places.

December 4, 1911

4924. *Fimbristylis diphylla* (Retz) Vahl.

Cyperaceae

Around Aquadules, in swampy places

4925. *Juncus*

Around Aquadules, in swampy places. Pet. 4, caducous. yellow.

4926. *Cyperus Haspan* L.

Cyperaceae

Around Aquadules, in swampy places.

4927. *Hyptis recurvata* Vait.

Labiatae

Around Aquadules, in wet places. Fl. purplish white

4928. *Gleoharis mutata* (L.) R. Br.

Cyperaceae

Around Aquadules, in wet places.

4929. *Limnocharis flava* Buchenau  $\beta$  minor Michel. *Alismataceae*

Around Aquadules, in wet places. Petals yellow, caducous.

4930. *Eragrostis*

Graminae

Around Aquadules, in wet places.

4931. *Anonopus compressus* Beauv.

Graminae

Around Aquadules, in wet places

4932. *Papaeranthus Lamarckii* Kunth

*Eriocaulaceae*

Around Aquadules, in wet places.



December: 4, 1911.

4933. *Dalechampia*

Euphorbiaceae

Around Aguadulce, climbing on bushes

4934. *Hyptis*

Labiatae

Around Aguadulce, in bushes. About 1.50 high. Fl. violet

4935. *Moronga* - *Moronga leptocarpa* (D.C.)

Leguminosae

Around Aguadulce, climbing on bushes. Fl. pinkish

4936

Around Aguadulce, in wet places. Fl. yellow. one at a time. Petals 3.

4937. *Pectis bonplandiana* H.B.K.

Compositae

Around Aguadulce, in wet places.

4938 *Solanum scabrum* Vahl Solanaceae

Around Aguadulce, in bushes. A shrub; fl. purplish white, Fr. orange red

4939

Flacourtiaceae

Around Aguadulce, in "taillis". A small tree. Fl. yellowish white.

4840

Apocynaceae?

Around Aguadulce, climbing on bushes.

4841 *Eclipta trifida* Jacq. Apocynaceae

Around Aguadulce, climbing on bushes. Fl. greenish white

December

4-5, 1911

4942

*Rhynchanthera mexicana* DC.

Melastomataceae

Around Aquadules, in wet places. Fl. large, pink.

4943

Cyperaceae

Around Aquadules, in wet places.

4944

Utriculariaceae

Around Aquadules, in wet places. Fl. yellow.

4945 *Burmannia capitata* (Walt.) Mart.

Polygalaceae

Around Aquadules, in wet places.

4946 *Schultesia Pohlana* Prog.

Gentianaceae

Around Aquadules, in wet places. Fl. yellowish pink.

4947 *Schultesia heterophylla* Mq.

Gentianaceae

Around Aquadules, in wet places. Fl. pink, large.

4948 *Marsdenia*

Apocynaceae

Around Aquadules, climbing on bushes.

4949 *Canisteriopsis schomburgkiana* (Benth.) C. B. Rob.

Malpighiaceae

Around Aquadules, in bushes.

4950 *Boerhaavia latifolia* (Roth.) Schum.

Rubiaceae

Around Aquadules, in savannas. Fl. white. Seed red.



- December 5, 1911.
4951. *Lapium Moritzianum* Kotsch Euphorbiaceae  
 Around *Agua dulce*, leaves from a young tree.
4952. *Mimosa panamensis* (Benth.) Standley Leguminosae  
 Around *Agua dulce*, in savanas.
- 4953 Amarantaceae  
 Around *Agua dulce*, in stony savanas.
4954. *Bradburya pubescens* (Benth.) V. Ktze Leguminosae  
 Around *Agua dulce*, ~~the plants~~ climbing on bushes.
4955. *Phoradendron rigidum* Urb. Loranthaceae  
 Around *Agua dulce*, on Rubiacous (?) tree.
4956. *Phoradendron mucronatum* Kr. & Urb. Loranthaceae  
 Around *Agua dulce*, on Rubiacous (?) tree.
- 4957 Euphorbiaceae  
 Around *Agua dulce*, around white ants nests.
4958. *Indigofera suffruticosa* Mill. Leguminosae  
 Around *Agua dulce* in savanas.
4959. *Paspalum cinereum* Humb. & Bpld. Graminae  
 Around *Agua dulce*, in savanas.

December 5, 1911.

4960 *Eugenia acapulcensis* Steud. Myrtaceae?

Around Aguadulce, in savanas. A shrub.

4961. *Triumfetta Lappula* L.  
Cadillo - Medicinal.

Ciliaceae

Around Aguadulce, outskirts of savanas.

4962

Leguminosae

Around Aguadulce, along ditches. Fl. bright yellow.

4963. *Cassia bicapsularis* L.

Leguminosae

Around Aguadulce, in bushes. A shrub, 2-3 m. high. Fl. bright yellow.

4964. *Eleocharis geniculata* R. Br.

Cyperaceae

Around Aguadulce, in water-ditches.

4965

Rubiaceae?

Port of Aguadulce, mangrove formation.

4966 *Conyza lyrata* HBK. Compositae  
Lechuquilla

Port of Aguadulce, along road. Plant 1<sup>m</sup> high, glutinous

4967. *Laguncularia racemosa* Gaertn.

Combretaceae

Port of Aguadulce, mangrove formation.

4968 *Avicennia bicolor* Steud.

Port of Aguadulce, mangrove formation.



December 5, 1911

4969. *Dicennia nitida* Jacq.

Verbenaceae

Port of Aguadulce, mangrove formation.

4970. *Alcan depressa* (Poir.) Kuntze

Leguminosae

Port of Aguadulce, along road. Fl. yellowish white

4971. *Gossypium*

Malvaceae

Port of Aguadulce, along road. Fl. pale yellow. 4 locked.

4972. *Dactyloctenium aegyptium* Richt.

Graminae

Port of Aguadulce, along road.

4973. *Echinochloa indica* Gaertn.

Graminae

Port of Aguadulce, along road.

4974. *Caesalpinia bonariensis*?

Leguminosae

Port of Aguadulce, outskirts of mangrove formation. Unnamed. Fl.?

Agallo - Black dye. The fruits picked ripe and on the ground, are dried & then  
"molidos, on the stone or in a pilon. The powder cooked with water gives the dye.

4975. *Bactris minor* Jacq.

Palmae

Port of Aguadulce, outskirts of mangrove formation.

Uvito, caña brava. Fruits edible, acidulate.

4976. *Bradburia pascuorum* (Benth.) O. Ktze

Leguminosae

Around Aguadulce, climbing on bushes.

4977. *Funaria clavatum*

Asclepiadaceae

Around Aguadulce, climbing on bushes. Fl. white

(Jacq.) Schlechter.

December

5, 1941.

4978

Around Aguadulce, in water ditches. Fl. azure blue.

4979

Around Aguadulce, in water ditches. Fl. very small, in spikes. white.

4980. *Waltheria glomerata* Presl.

Scrophulariaceae

Palo del soldado

Around Aguadulce, in outskirts of savanas. Fl. white.

4981. *Lophotocarpus guianensis* (H.B.K.) Smith

Alismataceae

Around Aguadulce, in water ditches. Pet. 3, white. Closed at 9 am. Fully open at 11 am.

4982 *Marsypianthes chamaedrys* (Vahl) <sup>Scrophular?</sup>  
Kuntze

Around Aguadulce, in savanas. Fl. purple

4983. *Stylosanthes humilis* H.B.K.

Leguminosae

Around Aguadulce, in savanas.

4984

Silleniaceae

Chumico pedorro. Se saca una agua limpida siguiendo el prodi-  
miento usado <sup>en</sup> para el agua, y dicha agua es soberana para el alivio de dolores de ojos.

Around Aguadulce, near salt works. Fl. yellow.

4985. *Bedrela mexicana* Roem.

Meliaceae

A bedro

Around Aguadulce in pastures. Small tree.

4986. *Justicia carthagenensis* L.

Acanthaceae

Around Aguadulce. Fl. purple.



December 6, 1911

4987. *Lasiacis compacta* Hitchc.

Graminae

Around Aguadulce in bushes.

\* 4988. *Bumelia chovata* Sw.

Sapotaceae

Around Aguadulce, on outskirts of salt works. Fl. white.

Caimitillo - Fruit edible - Wood specimen.4989. *Coccoloba*

Around Aguadulce, on lower plains around salt works.

Uvero. Las frutas se comen y de ellos se hace chicha. Photo 4x5.

4990. *Jacquinia macrocarpa* Cav.

Theophrastaceae

Near Aguadulce, around salt works. A ~~tree~~ shrub, 2-3' high.

{ Limoncillo - Perroto find of the fruit and people too.

{ Manzanillo de pisa

4991

Flacourtiaceae

Around Aguadulce, en las llanuras.

Mostreneo

4992. *Conalaria hexandra* Schum.

Rubiaceae

Around Aguadulce, in savannas.

4993. *Bursera (Elaphrium) panamensis* Pittier. Burseraceae

Around Aguadulce, near salt works (lower level).

Almácigo de cruz. La resina se usa para quitar inflamaciones. Se dice también que la infusión de los cogolitos es diurética.

4994. *Randia tetrandra* D.C. ??

Rubiaceae

Around Aguadulce, on outskirts of savannas.

Corpino amargo. Infusión para curar la toz.

4995. *Conocarpus erectus*

Around Aguadulce near salt works. Mangrove formation.

Mangle torcido

4996

December 6, 1911.

Graminae Near Aguadulce, around salt works.

4997 *Ocimum micranthum* Willd Labiatae  
Albahaca de vaca. La infusión se usa para combatir inflamaciones.  
y curar herpes.

Near Aguadulce, on lower plain.

4998 - *Lasiacis globosa*, Hitchc.

Graminae Near Aguadulce, on lower plain

4999 *Metastelma pedunculare* Asclepiadaceae  
Dcne.

Near Aguadulce, on lower plain.

5000

Euphorbiaceae Near Aguadulce, on lower plain

Pie' de niño. Milk very caustic - Hierba milagrosa (San Feli)  
3 hojas en té, sirven para curar la toz.

5001. *Miconia rubiginosa* D.C.

December 7, 1911.

*Friega platos. platos*

Melastomat.

road to Nata  
Between Pouri' and Rio Chico, <sup>at</sup> treelet. Fl. white.

5002 - *Amphilophium paniculatum* H.B.K.

Biognoniaceae

Between Pouri' and Rio Chico, climbing on bushes. Common. Fl. purple, <sup>+</sup>  
white or pale inside.

5003 - *Arrabidaea pachycalyx* Sprague

Biognoniaceae

Between Pouri' and Rio Chico, climbing on bushes. Fl. violet purple.



December 7, 1911.

5004. *Arrabidaea rotundata*  
(DC.) Bur.

Bignoniaceae Between Pori and Nata. A vine.

5005. *Plumbago scandens* L.

Plumbaginaceae Between Pori and Nata. in bushes. Fl. pale blue.

5006. *Gombretum lepidopetalum* Pilger

Gombretaceae

Pateno. extensively used in building in place of nails, to bind the rafters of roofs, etc. - Cepillo (San Felix).

Between Pori and Nata. Fl. always yellow. Seen everywhere between Aguadulce and Nata.

5007. *Guttaria hexandra* Schum.

Rubiaceae

Between Pori and Nata. Fl. white. A small tree

5008. *Aristolochia*

Aristolochiaceae

Between Pori and Nata. A vine. Fl. (stallum) yellow.

5009. *Githonia rotundifolia* (Muhl.) Blake  
Alm de muerto Remedios

Compositae

Between Pori & Nata, forming immense colonies in fertile alluvial land. Fl. yellow

5010. ~~Rourea~~

*Connarus panamensis* Griseb

Sapindaceae

Between Nata & Cortez. A tree. Fl. white

5011. *Tabernaemontana grandiflora* Jacq.  
Huevos de perro.

Apocynaceae

Between Nata & Cortez. A treelet 2-3 m. high. Fl. bright yellow.

5012. *Bittiera longipedunculata* Cogn.

Cucurbitaceae

Between Nata & Cortez. A vine.

5013. *Chamaecrista brevipes* (D.C.) Green  
Sen in Remedios - Med.

5014. *Cassia pauciflora* H. B. K.

5015. *Hyptis* &  
*Hierba de morriña.*

5016

5017. *Heliocharis arborescens* Lemmon. *Etiliaceae*

5018. *Andropogon festigiatus* Sw.

5019. *Aristida setifolia*

5020. *Paspalum stellatum* Humb. & Bped.

5021. *Oxonopus appendiculatus* Beauv.

December 7, 1911.

*Leguminosae*

*Leguminosae*

*Labiatae*

*Compositae*

*Graminae*

*Graminae*

*Graminae*

*Graminae*

Between Cortez and Cruces de Churrué, in stony hills, abundant & characteristic. Fl. bright yellow.

Between Cortez & Cruces de Churrué, in stony places. Fl. orange red, large

Between Cortez & Ola', everywhere in stony hills. 0.30-1.20 high, fl. purplish blue. *Tricarpeneus*.

Between Cortez & Ola', in stony hills, common. Fl. purplish blue

Between Cortez & Ola', everywhere in bushes, shrub or treelet, 1-3' high

Between Cortez & Ola', in dry hills

Between Cortez & Ola', in dry hills

Between Cortez & Ola', in dry hills

Between Cortez & Ola', in dry hills.



December 7, 1911.

5022. *Meibomia aspera* (Poir.) Ktze.

Leguminosae

Between Cortez & Olá, in wet places. Fl. purple

5023. *Hyptis suaveolens* (L.) Poit.  
San Juanillo

Labiatae

Between Cortez & Olá, replaces *H. macrodon* in hills. Fl. blue.

5024. *Clusia minor* L.  
Copey

Guttiferae

Between Cortez & Olá, a small tree in bushes. Fl. pinkish white

5025

Euphorbiaceae

Between Cortez & Olá, in bushes. A shrub. Fl. white

5026. *Aphelandra Deppeana* Schiede  
straight, slender  
Crompito. The stems are used for pipe-stems.

Acanthaceae

Between Cortez & Olá, in bushes. A shrub, up to 2.50 high, erect. Fl. pink.

5027 *Rhynchosanthus mexicana* DC.  
Flor del diablo. The devil's hand to be seen in the flowers (stamens) or in the fruit!

Melastomataceae

Between Cortez & Olá, in damp places. Up. to 1.30 high. In colonies. Fl. purplish pink

5028 *Lagenaria vulgaris* Ser.  
Cula de nate.

Cucurbitaceae

Around Olá in savannas. Fr. round or slightly depressed, up to 40 cm. diam.

5029 *Elaterium ciliatum* Cogn. Cucurbitaceae  
Gallotillo - Norbo. Binarrin (S. Felix).

Around Olá, in cool bushes. Fl. bright yellow.

5030. *Lobelia splendens* Willd. Lobeliaceae  
Flor de garza

Near Olá, in river. Fl. scarlet red.

5031

December 7-8, 1911

Euphorbiaceae Around Pla', in meadows.

5032

Lythraceae Around Pla', in stones in river. Fl. purple.

5033. *Viguiera tenuis* Gray.

Compositae Around Pla', in dry, sunny places. Fl. white

5034. *Piper dumeticola panamense* C. DC.  
Gusanillo

Piperaceae Around Pla', in bushes. A low shrub.

5035 *Stylogne laevis* (Berth.) Mez

Myrsinaceae Around Pla', along river. Fl. white

5036. *Aphelandra pectinata* Willd

Acanthaceae Around Pla', along river. Fl. pink.

5037. *Sorghastrum incompletum* Nash.  
Niño de Dios

Graminae Around Pla', in dry places on road to Picacho

5038. *Psychospora armerioides* Presl.  
Arroy de Sabana

Cyperaceae Around Pla', in dry places on road to Picacho.

5039. *Curtia tenella* (Mart.) Cham.

Gentianaceae Around Pla', in dry places on road to Picacho.



December 8, 1911.

5040. *Coccolyselum aureum* (Pursh) v. Rubiaceae Around Olla', in cool places on road to Picacho. Fl. pinkish white. Berries azure-blue.
5041. *Tridax procumbens* L. Compositae Around Olla', near upper limit of forest. Fl. pink.
5042. *Muhlenbergia distichophylla* Kunth. Graminae Around Olla', on road to Picacho.
5043. *Eriochloa distachya* Graminae Around Olla', on road to Picacho.
5044. *Cracca leptostachya* (D.C.) Rusby Leguminosae Around Olla', on road to Picacho. Fl. purplish.
5045. *Pterolepis trichotoma* (Rottb.) Cogn. Melastomat. Around Olla', on road to Picacho. Fl. pink.
5046. *Pereilema crinitum* Presl. Graminae Around Olla', on road to Picacho.
5047. *Aristida setifolia* Graminae Around Olla', on road to Picacho.
5048. *Meibomia supina* (Sw.) Britton Pegadara Leguminosae Around Olla', on road to Picacho. Fl. pale purple.

December 8, 1911

5049. *Hyptis savannarum* Briz. Labiatae Around Ola', from village to top of Picacho.
- 5050 Filices Around Ola', in wet talus along path to Picacho.
5051. *Elyonurus tripsacoides* Hook. & Bld. Graminae Around Ola', on road to Picacho.
5052. *Oxanopus appendiculatus* Graminae Around Ola', near upper limit of woods on Picacho.
- 5053 Compositae Around Ola', near upper limit of woods on Picacho.
5054. *Andropogon brevifolius* Graminae Around Ola', on road to Picacho.
5055. *Chloris* Graminae Around Ola', on road to Picacho.
5056. *Eupatorium Sinclairii* Benth. Compositae Around Ola', on road to Picacho, in bushes. Fls. bright yellow.  
Clavellin de monte.
- 5057 Turneraeae Around Ola', in bushes, corolla plane in middle of day (i.e. very broadly open).



December 8, 1911.

5058. *Polygala hygrophila* H. B. K.

Polygalaceae

Upper zone of Picacho de Ola'. Fl. white

5059

Compositae

Upper zone of Picacho de Ola'. Fl. purple

5060 *Koeleria argyrostigma* (Hook.) Regel  
Gramineae

Gorge at headwaters of Cose' R., in rocks. Leaves white spotted. Fl. white  
small. Another species with very large purplish blue fl. (delicious) was found  
higher up, but lost subsequently.

5061

Selaginellaceae

Gorge at headwaters of Cose' R., in rocks.

5062. *Muhlenbergia distichophylla* Kunth.

Gramineae

Picacho de Ola', upper belt.

5063. *Paspalum pectinatum*.

Gramineae

Picacho de Ola', upper belt.

5064. *Paspalum stellatum* Humb. & Bpold.

Gramineae

Picacho de Ola', upper belt

5065. *Campulocis planifolia* Presl.

Gramineae

Picacho de Ola', upper belt

5066. *Aristida setifolia*

Gramineae

Picacho de Ola', upper belt.

December 8, 1911.

5067- *Indigofera lepedezzioides* H.B.K.

Leguminosae

Picacho de Ola', upper belt. Fl. dull red.

5068. *Rytidix granulatis* Reel.

Graminae

Picacho de Ola', upper belt.

5069

Picacho de Ola', upper belt. Fl. purple.

5070- *Polygala paludosa* St. Hil.

Polygalaceae

<sup>upper belt</sup>  
Picacho de Ola', Fl. pink.

5071- *Cymbopogon bracteatus* Hitchc.

Graminae

Picacho de Ola', upper belt.

5072- *Hyptis laurifolia* Poir.

Labiatae

Picacho de Ola', upper belt. Fl. white.

5073

*Antennaria*

Picacho de Ola', on top. Fl. white.

5074- *Cosmibuena ovalis* Standley.

Rubiaceae

Postimera - Hoja para madurar naidos, y reventarlo

Headwaters of Gose' R., near upper limit of forest. A low tree. Fl. white turning to brown.

5075- *Piper grandifolium* H.B.K. forma b.

Piperaceae

Headwaters of Gose' R., <sup>in gorge.</sup> near upper limit of forest.



5076. *Styrax argenteum* Presl.  
Yahumerio

5077. *Polygala peniculata* L.

5078. *Loeselia involucrata* Don.

5079. *Clomenocoma montana* Benth.

5080. *Meibomia spiralis* (Sw.) Kuntze.

5081

5082. *Piretia scandens* Vent.

5083

5084. *Pectis cepillaris* D.C.  
Romero de savana

December 7, 1911.

*Styracaceae* Headwaters of Cose' R., near upper limit of forest. A thick set,  
low tree, with abundant flowers.

*Polygalaceae* Headwaters of Cose' R., near upper limit of forest, in open places.  
Fl. blue.

*Polemoniaceae* Upper belt of forest of Picacho de Ola', in bushes. Fl. yellow.

*Compositae* Upper belt of forest at Picacho de Ola'. Fl. fire-red.

*Leguminosae* Upper belt of forest at Picacho de Ola'. Fl. pinkish white.

*Filices* Upper belt of forest, Picacho de Ola'.

*Leguminosae* Upper belt of forest. Picacho de Ola'. Fl. yellow.

*Filices* Upper belt of forest, Picacho de Ola'.

*Compositae* Around Ola', in savannas. Common

5085. *Xylopia frutescens* - var. *glabrata*  
Malaqueto hembra

5086

5087. *Hygrophila guianensis* Nees

5088. *Cassia alata* L.  
Laureño

5089. *Acacia*

5090. *Annona*  
Anon del interior.

5091  
Romero de ciénaga

5092. *Aeschynomene americana* L.

5093

December 7<sup>th</sup>, 1911.

Anonaceae Around Ola' on outskirts of savannas. A treelet.

Gerophalacium Around Ola', in ditches. Fl. white.

Alcanthaceae Around Ola', in water-ditches.

Leguminosae Around Ola', in wet places

Leguminosae Around Ola', very large trees. Fl. sparse on branchlets(?).

Anonaceae Around Ola'. Fl. 3-petaled, greenish. Fr. almost smooth, pinkish.

Around Ola', in water-ditches. Older(?), leaves less divided.  
Hlfl.?

Leguminosae Around Ola', in bushes and water-ditches.

Euphorbiaceae Around Ola', in savannas. Dwarf. Fl. white



December 29, 1911.

5094. *Machaerium Seemannii* Benth. Leguminosae Near Cruces de Chucucé, between Ola' & Cortez. A small tree.

5095 Convolvulaceae Near Cruces de Chucucé, between Ola' & Cortez. Fl. blue, small.

5096 Leguminosae Near Cruces de Chucucé, between Ola' & Cortez. A small tree.

5097 Melastomataceae Hills between Ola' & Cortez, in stony places.

5098 Leguminosae Hills between Ola' & Cortez. Fl. yellow.

5099. *Contoubea spicata* Gentianaceae Hills between Ola' & Cortez. Common.  
Pasmito de cerro. Medicinal. Infusion se da a' las reñen paridas  
cuando se parman

5100. *Parosela domingensis* (D.B.) Millsp. Leguminosae Hills between Ola' & Cortez. Fl. small, pink.

5101 Leguminosae Banks of R. Chico, at Paso del Arado. A tree with flat crown.  
Fl. yellowish, covered with swarms of bees.

5102. *Isacorea revoluta* Myrsinaceae  
Uvito (HBK.) Standl.

Between Paso del Arado & Porri, a treelet. Fl. white.

December 19, 1911

5103. *Calcea Pittieri* Rob. & Greenm.

Compositae

Between Paso del Prado & Pouri. Common everywhere

5104 *Crestidium rufescens*  
Blanch.

Leguminosae?

Hills and dry places around Paso del Prado.

5105. *Schizolobium superbum* Pitt.

Leguminosae

Near Pouri. A large tree. Fl. yellow.

Agallo macho - Heart yellow. A fine, hard timber

December 11, 1911

5106

*Schwaeria eupheoides* (Benth.) Cogn.

Melastomataceae

Isla Uva, Contreras Archipiélago. Fl. pinkish white.

5107

*Umbriera* (J. Falc.)

Loganiaceae

Isla Uva, Contreras Archipiélago. On rocks. Fl. purplish white.

5108

Convolvulaceae

Isla Uva, Contreras Archipiélago. Fl. large, pink.

5109. *Begonia uvana* C. DC.

Begoniaceae

Isla Uva, Contreras Archipiélago. On wet rocks.

5110 *Kohleria*

Gesneriaceae

Isla Uva, Contreras Archipiélago. On wet rocks. Fl. red.



5111-

5112 - *Piper marginatum* Jacq.  
Hinojillo (S. Felix).

5113. *Alphelandra pectinata* Willd.

5114-

Zanudo (San Felix)

5115. *Bletia verecunda* R. Br.

5116. *Miconia argentea* D.C.

Canillo (David); Dos caras (Los Santos)

5117 *Nectandra pichurim* (HBK.) Mez  
*Ligna canelo*

5118

Canibar.

*Gesneraceae* Isla Uva, Contreras Archipelago. Fl. red.

*Piperaceae* Isla Uva, Contreras Archipelago

*Aluminaeae* Isla Uva, Contreras Archipelago.

*Capparidaceae* Isla Uva, Contreras Archipelago. Fl. pinkish white

*Orchidaceae* Isla Uva, Contreras Archipelago.

December 14<sup>th</sup> 1911.

*Melastomat.* Pedregal de David, a small tree, Fl. white.

*Lauraceae* Pedregal de David, a small tree. Fl. white.

*Leguminosae* Horoncitos. A medium sized tree.

5119. *Inga laurina* Willd

de América.  
Leguminosae

14-16, 1911

Boca Chica near Horconitos. A small tree along shore. Fl. white.

5120. *Stylogyne laevis* (Desf.) Mez  
Uruto

Myrsinaceae

Boca Chica de Horconitos. Fl. white.

5121. *Diokea guianensis* Benth.

Leguminosae

Boca Chica de Horconitos. A vine; fl. purple.

5122. *Lippia geminata* H.B.K.

Verbenaceae

Boca Chica de Horconitos.

Mastranto. Med. y Aromático.

5123.

Compositae

Boca Chica de Horconitos

Abrojo

5124

Piperaceae

El balugal de San Felix

5125 *Echites peltata* Vahl  
Guingara

Apocynaceae

El balugal de San Felix.

5126. *Begonia serratifolia* C.DC.

Begoniaceae

San Felix de Remedios.

Flexionero. Med. en fricciones contra reumático.

5127. *Instencia Houstoni* L.

Moraceae

San Felix de Remedios

Pie' de gallo. La raíz machacada se usa para curar mordeduras de bichos



December 16, 1911.

5128

Hierba de sapo

Euphorbiaceae

San Felix de Remedios. Climbing on bushes.

5129. *Arrabidaea pachycalyx* Sprague

Bignoniaceae

San Felix de Remedios. A vine, climbing on high trees. Fl. pinkish purple.

5130 *Banisteria lucheyana* (Juss.)  
C. B. Rob.

Malpighiaceae

San Felix de Remedios. A treelet in forest.

5131. *Piper geniculatum* Sw., forma d, C. B. Rob.

Piperaceae

San Felix de Remedios.

5132

Anonaceae

San Felix de Remedios. A large tree, with hanging branches.

5133. *Cassia spectabilis* D.C.  
Frijolillo.

Leguminosae

San Felix de Remedios, outskirts of forests. A small tree.

5134

Lelaginella

San Felix de Remedios in cool forests

5135. *Trichomenes*

San Felix de Remedios, in cool forests.

5136.

Meleostomataceae

San Felix de Remedios, in cool forests. Fl. white.

5137

Diciembre 16, 1911

Piperaceae

San Felix de Remedios, in woods.

5138 *Niconia minutiflora* (HBK.)  
DC.

Melastomataceae

San Felix de Remedios, in outskirts of forest. A little tree. Fl. bluish

5139 *Paullinia alata* Sm.

Leguminosae

San Felix. A vine.

5140 *Trichileia hirta* L.

Meliaceae

San Felix. A small tree, in forest.

5141

Pino blanco, placeta

Leguminosae

San Felix. A vine. Fl. blanca.

5142

Pica lengua

Placynthaceae

San Felix. A small tree. Fl. white

5143 *Peperomia glabella* A. Dietr.

Piperaceae

San Felix, along river. Epiphytic.

5144 *Heterotrichum octanum*  
(Bonpl.) DC.

Melastomataceae

San Felix, in bushes. Fl. large, white.

5145 *Nectandra globosa* (Aubl.)  
Liqua blanco Mez

Lauraceae

San Felix, a tree on outskirts of savanna. Fl. white.



5146. *Cassia baccularis* L. fil.

December 16, 1911  
Leguminosae

San Felix, in forest. A small tree. Fl. pale yellow.

5147. *Cassia falcinella* Standley

Leguminosae

San Felix, in forest. A shrub or treelet. Fl. bright yellow.

5148. *Correa latifolia* (Aubl.) Schum.

December 17, 1911  
Rubiaceae

San Felix, in pastures. Fl. bluish white.

Hierba de puerco. Invade potreros alrededor del pueblo, junto  
en Agtis.

5149. *Paspalum multicaule*

Gramineae

San Felix, in savannas.

5150. *Calathea*

Bijao cuero de macho. Usan la hoja para envolver tabaco; tem  
la manta de no echar pelusa.

Cerro de la Plata, near S. Felix. Fl. yellow.

5151

*Succanica*

Cyclanthaceae

Cerro de la Plata, near S. Felix, in forest.

5152 *Chamaedorea Weudlandiana* (Oerst.) Hump.

Se come la espiga tierna. Es el palmito dulce de C.R.  
ind.

Cerro de la Plata, near S. Felix, in forest. About 2.5' high, up to 3' spades.

5153. *Melanthera*

*Siroulaca blanca*. Very good feed for cattle.

Cerro de la Plata, near S. Felix, in clearings

5154- *Meibomia spiralis* (Sw.) Kunth

December

Leguminosae

17, 1911.

Cerro de la Plata near San Felix, in clearings. Fl. small, white. Stems 1 $\frac{1}{2}$ -1.5 high.

5155- *Saramea occidentalis* A. Rich

Rubiaceae

Huanto. A very hard wood.

Cerro de la Plata, near San Felix, in woods. A small tree, with straight trunk. Common in woods.

5156-

Monimiaceae

Pasmo de agua. Infusion <sup>en baños</sup> caliente para curar <sup>perros</sup> que sobreviene en heridas cuando se mojan. Las hojas embarradas de manteca para dolores de cabeza.

Cerro de la Plata, near S. Felix, in woods.

5157

Urticaceae

Ortiga Blanca

Cerro de la Plata near S. Felix, in woods. A small tree

5158- *Piper tiliaefolium paulowniaefolium* Bth. Piperaceae

Cerro de la Plata near S. Felix, in woods. A tuulet.

5159- *Piper auritum amplifolium* B. & H.

Piperaceae

Monca Blanco

Cerro de la Plata near S. Felix, in woods. Sublignose, 2-3m. high.

5160- *Piper pellatum* L.

Piperaceae

Hinojillo

Cerro de la Plata near San Felix, in woods. Sublignose or rather herbaceous

5161

Filices

Cerro de la Plata near S. Felix, in woods

5162

Filices

Cerro de la Plata near S. Felix, in woods.



5163

December

Filices

17, 1911.

Cerro de la Plata near S. Felix, in woods.

5164. *Streptochaeta sodiroana*

Graminae

Cerro de la Plata near S. Felix, in woods.

Cansa-perro. Usado para quitar el pelo del cuerpo.

5165

Filices

Cerro de la Plata near S. Felix, in woods. Arborescent, scandent.

5166

Filices

Cerro de la Plata near San Felix, in woods.

5167

Palmae

*Palma negrita*

Cerro de la Plata near San Felix, in woods. Stem very short. Spikes simple mostly with ♀ fl. at base &amp; ♂ at top. Often unsexmate.

5168. *Salvia occidentalis* Sw.

Labiatae

Cerro de la Plata near San Felix, in clearings. Fl. azure blue

Cansa-perro

5169. *Lida carpinifolia* L.

Malvaceae

Cerro de la Plata near S. Felix, in clearings. Fl. yellow.

Escobilla

5170.

Simulacrae

Cerro de la Plata, near S. Felix, in clearings.

5171. *Miconia fulva* D.C. var. ?

Melastomataceae

San Felix, in forests. Small tree, up to 10m. high. Trunk straight. Brown elongate.

Palo negro. Hard wood, almost indestructible.

December

17, 1911

5172 *Miconia albicans* (Sw.) Trevisan Melastomataceae

San Felix, in woods, treelet about 1.5 high.

5173

?

San Felix, in woods. A pyramidal symmetrical treelet. Fl. white

5174

Solanaceae

San Felix, in woods. A treelet with flat crown. Fl. white.

5175 *Miconia nervosa* (Sw.) Trevisan Melastomat.

San Felix, in woods. A treelet. Fl. white on red rachis.

5176. *Serjania grandis* Lam.

Sapindaceae

San Felix. A vine climbing on trees at outskirts of savannas. Fl. white.

5177

Perico - No use

Compositae

San Felix, in woods. A windruyed tree, 15-20m. high. fl. white.

5178. *Bertiera guianensis* Aubl.

Rubiaceae

San Felix, in outskirts of woods. Rachis red, fl. orange yellow

5179. *Palicourea parviflora* Benth.

Melastomataceae

San Felix, in bushes. A treelet, 2-3m. high. Fl. pink.

Flor de Guapaima (verify number!)

5180

Fungi

Cerro de la Plata near San Felix, on dry trails



December 17-18, 1911.

5181

Fungi

Cerro de la Plata near San Felix. On dry wood.

5182

Fungi

Cerro de la Plata near San Felix. On dry wood.

5183

Fungi

Cerro de la Plata near S. Felix. On live large tree roots.

5184. *Eragrostis amoena* Presl.

Gramineae

Around San Felix, in savanas.

5185. *Paspalum pedunculatum*

Gramineae

San Felix, in savanas.

5186 *Piraemnia latifolia* Tul. Meliaceae?

San Felix, in dry woods. A treelet. Fl. red, very small.

5187

Filices

San Felix, in dry woods.

5188. *Eupatorium macrophyllum* L.

Compositae

San Felix in clearings. Fl. white.

5189

Piperaceae

San Felix, in dry woods along creek. A treelet.

December 18, 1911.

5190 *Ouratea wrightii* (Vauq.)  
Kiley

Onnaceae

San Felix, in woods. A shrub or small tree. Fl. bright yellow.

5191

Filices

San Felix, in woods. Rather common in places.

5192

Filices

San Felix, in woods.

5193. *Scaphyglottis brachiata* Schltr.

Orchidaceae

San Felix, epiphytic on *Miconia*. Petals purplish white. Column purple.

5194. *Aristida capillacea*.

Gramineae

San Felix, in savannas. Common.

5195. *Sporobolus ciliatus*

Gramineae

San Felix, in savannas. Common.

5196

Styracaceae?

San Felix, in woods. A small tree.

Cabo de Hacha. Small tree with oblique trunk, not over 25 cm. in diam; used as indicated by the name, for ax handles.

5197

?

San Felix, in woods. A medium sized tree. Fl. white, pet. 5, st. 10. Calyx persisting, enlarging with fruit?

5198. *Pohizaea*

Filices

San Felix, in dry woods.



5199

December 18  
Compositae San Felix, in clearings. Fl. purplish white.

5200

Geonereaceae San Felix, in cool places along brook. Corolla yellow with dark  
red veins.

5201 *Leandra mexicana* (Naud.) Cogn.

Meleostomaceae San Felix, in bushes. Fl. pink.

5202. *Chaetochlamys panamensis* Lindau

Alseodaphnaceae San Felix, in bushes. Fl. purple.

5203.

Gramineae San Felix, in bushes.

52

5204. *Schnanthus pallens* Munro.

Gramineae San Felix, in bushes

5205. *Oplismenus cristatus* Presl.

Gramineae San Felix, in bushes

5206. *Plyra arundinacea*

Gramineae San Felix, in bushes

5207

Rubiaceae San Felix, in bushes. Corolla pale yellow.

December 18, 1911.

5208

Filices

San Felix, in woods

5209

Filices

San Felix, in woods

5210. *Malvaviscus arboreus gloanei* Baker

Malvaceae

San Felix, in wood. A treelet. Fl. pink.

5211

Filices

San Felix, in wood

5212

Filices

San Felix, in wood

5213

Filices

San Felix, in wood

5214. *Watsonanura tinajita* (Seem.) O. K.  
n.v. tinajita

Rubiaceae

San Felix, in woods. Fl. yellow.

5215. *Begonia leptopoda* C. D. C.

Begoniaceae

San Felix, on shady banks.

5216. *Chamaecrista flavicoma* (H. B. K.)

Leguminosae

San Felix, in clearings. Fl. yellow.



December 1911.

5217 *Solanum hirsutissimum* Solanaceae  
Studd. Along R. Tapi, near S. Felix. Calyx whitish.

5218. *Crataeva Tapia* L. Capparidaceae Along R. Tapi. A tree. 40 cm. high. Lat. wood. Fl. purplish white.

5219 Euphorbiaceae Along R. Tapi. A tree. Fl. white

5220. *Orthocladia variflora* Beauv. Graminae Along R. Tapi, in woods.

5221. *Aspasia epiphytoides* Lindl. Orchidaceae Along R. Tapi, epiphytic in woods. Fl. purplish white.

5222. *Achyranthes* Amaranthaceae Along R. Tapi, in woods.  
Pega-pega. Buen pasto, rebuscado por el ganado

5223. *Sobralia* Orchidaceae Along R. Tapi, epiphytic. Fl. pink.

5224. *Peperomia glabella* A. Dietr. Piperaceae Along R. Tapi, epiphytic

5225. *Phaseolus hirsutus* Mart. Leguminosae San Felix, in clearings. Fl. yellow.

5226 *Bumelia*

December 1911.  
Malpighiaceae

Rio Tupi, a shrub. Fl. yellow. Fr. orange red.

5227 *Eriogonum incompletum* Nash. Gramineae

San Felix, in clearings.

5228 *Ocoba laurina* Warburg.

Flacmoriaceae

(~~Alseodaphne~~) Carbonero - Good timber, not very common & little used.

San Felix, in light wood. A mid-sized tree, 12-15<sup>m</sup> high, 30-35 cm. diam. Branching radiate, beginning 3m. above ground. <sup>Green</sup> Fr. pyramidal. Fl. white.

5229 *Platypodium maxoniana* Pittier  
Carcuera

Leguminosae

San Felix, in wood. A very large tree.

5230 *Leptanthes pallens* Munro

Gramineae

San Felix, in savanas

5231 *Panicum lacum*

Gramineae

San Felix, in savanas

5232 *Axonopus chrysodactylon*

Gramineae

San Felix, in savanas.

5233 *Schulthesia lisianthoides* (Griseb.) O. K.

Gentianaceae

Canchalagua - Febri-fugo, emenagogo, y antibilioso.

San Felix, in savanas. Fl. first yellowish, then pink

5234 *Diphyssa carthagenensis* Jacq.

Leguminosae

Macano -

San Felix, in savanas, and around houses.

Is it the same than in Chapo & C.R.?



*Vincetoxicum viridiflorum* (Mey.) Steud.  
5235. *Gnolobus* Asclepiadaceae

December

21, 1944.

Between San Felix & Dupi, in clearings. A vine, fl. green.

5236

*Aristolochia*

Between San Felix & Dupi, in clearings. Larkspur yellow, dotted with dark purple. Inner tube, dark purple spotted with yellow.

5237. *Solanum ellipsoideibaccatum* v. *picilobum* Bitter.  
Gallote. (Fedd. Rep. 1914, p. 173). Solanaceae

Between San Felix & Dupi, in clearings. Bearing of capsicum. Fruits void,  $\pm$  5 cm. long. 3 cm. diam, striped green & yellow.

5238. *Cestrum pauciflorum* Steud.  
Hiede-hiede. Desquende un perfume muy fuerte durante la noche. Solanaceae

Along R. Dupi. A small tree. Fl. greenish yellow.

5239. *Ficus glabrata* H.B.K.  
Higuera Moraceae

Moraceae

Along R. Dupi. A large tree. Fr. long pendulous.

5240. *Habenaria maculosa* Lindl.

Orchidaceae

Along R. Dupi. Terrestrial. Fl. white.

5241. *Bradburya pubescens* (Benth.) O. Kuntze Leguminosae

Along R. Dupi. A vine. Fl. purple, tinged with yellow.

5242

Filices

Along R. Galique.

5243

*Copretella*

Anonaceae

In forests around S. Felix. A small tree. Fr. red when ripe.

Photo

December 21, 1911

5244. *Rynchospora cephalotes* L. Vahl.  
Hierba cabezona

Cyperaceae San Felix, in bushes

5245. *Scleria reflexa* H.B.K.  
Cortadera

Cyperaceae San Felix, in bushes. Climbing.

5246 *Clusia rosea* L.  
Cope'

Guttiferae San Felix, in woods. A tree  $\pm$  20 m. high. Green fls. Fl. pinkish white.  
Fr. in alcohol.

5247. *Panicum costaricense* Hackel.

Graminae San Felix, in cool places in woods.

5248. *Hieronymia alchorneoides* Frère Allemão  
Zapatero

Euphorbiaceae San Felix, in woods. A mid sized or large tree.

5249 *Clidemia rubra* (Aubl.) Mart.  
Hoya peluda. Fr. edible

Melastomataceae San Felix, in bushes, in sunny places. Fl. pinkish. Fr. bluish black. An erect shrub.

5250 *Clidemia neglecta* Don  
Hoya peluda. Fr. edible

Melastomataceae

San Felix, in shady bushes. Infl. hanging. Corolla white. A shrub.

5251. *Condemia corymbosa* DC.

Bignoniaceae Rubrae

San Felix, in shady, cool bushes along creek. A small tree, with many branches. Corolla green inside, purplish outside.

5252

Compositae

San Felix, climbing on trees in sunny places. Fl. white.



December 22, 1911

5253

Lacistomataceae

San Felix, in dry wood, a small tree.

5254. *Palicourea parviflora* Benth.

Rubiaceae

San Felix, in woods. A shrub or small tree(?). Corolla yellow.  
Anthers orange yellow.5255 *Virola* ? *Warburgii* Pittier  
Bogamani.

Myristicaceae

San Felix, in woods. Apparently a large tree. Fl. collected in ~~the~~ <sup>the</sup> ~~woods~~ <sup>woods</sup>  
tree, not open. Common in woods. Tree pyramidal, up to 30m high,  
with radiate ramification. Photo.5256 *Cassipouira javitensis* HBK. Flacourtiaceae  
MauiroSan Felix, in woods. A <sup>common</sup> treelet. Fl. white.5257. *Eriosema simplicifolium* (H.B.K.) Walp. Leguminosae

San Felix, in dry savannas. Fl. yellow.

5258 *Miconia pteropoda* Benth. Melastomataceae

San Felix, in woods, a small tree. Fl. white

5259. *Andropogon festigiatus* Sw.

Graminae

San Felix, in savannas.

5260. *Miconia rubiginosa* J.E.

Melastomataceae

Canillo de cerro. Madera muy dura y dura de la, usada para  
postes de cercas.San Felix, in dry woods. Fl. white. A treelet or a shrub, 2-3m.  
high.

5261.

Melastomataceae

San Felix, in dry woods. Fruits in dense spike like clusters, bluish  
black.

December

23, 1911.

5262. *Piper grandifolium* H.B.K.

Piperaceae

San Felix, in woods, sometimes a little tree, but mostly a shrub.

5263. *Copaifera keri guensis* Pitt.  
Camibar, camiba, caniva.

Leguminosae

San Felix, in woods. A large tree, trunk up to 1.20 diam & 20" high.  
brown flat. Photo.

5264. *Didymopanax Morotoni* Janc & Planch. Arelaceae

San Felix, in woods.

Pava - Used in boards. Trunk straight, reaching sometimes 50 cm. in diam.  
and 20 m. in height. Bark grayish, almost smooth. Crown depressed. No heart, thick pith.

5265. *Miconia fulva* H.B., var.

Marastomat.

San Felix in woods. A small, 7-8" high tree. Fl. white.

5266. *Peperomia*

Piperaceae

San Felix, in woods, in rotten trunks

5267. *Vitex floridula* Buchs. & Walpers. Verbenaceae

San Felix, in woods.

Guaja - Rather common. Trunk straight, but uneven and sulcate. Bark  
gray. Max. diam = 1 m. Branching rather low and ascending. Keeps long in earth.

Rw

5268. *Aglobium Stachyobium* Hemsl.

Orchidaceae

San Felix, in woods. Epiphytic.

5269

?

San Felix, in woods. A tree 30 cm. diam, ~~100~~ 1 m. high, more. Limbs long.  
slightly hanging.

5270. *Inga Roussoviana* Pittier sp. n.

Leguminosae

San Felix, in woods. A small tree. Fl. white.

Guaro



Dec

23, 1912

5271

Raicilla

Rubiaceae

San Felix, in woods.

5272. *Schnanthus pallens* Muaro.

Gramineae

San Felix, in woods.

5273. *Enterolobium Schomburgkii* Benth. Leguminosae.

Harino - Fr. eaten by cattle.

San Felix, in dry woods, on high flats and ridges. A <sup>very</sup> large tree, up to 1.50 diam. and trunk 30m. high, ramification tortuose starting all from top of trunk. Crown flat. Fr. like *Enterolobium*.5274. *Peperomia cylindrica* C. & B.

Piperaceae

San Felix, in ~~dry~~ woods. Epiphytic.5275. *Maxillaria tenuifolia* Lindl.

Orchidaceae

San Felix, in wood, epiphytic. Sep. pinkish, darker outside. Petal pink outside, white inside.

5276. *Almaciua corymbosa* H. B. K.

Rubiaceae

San Felix, in wood. A small tree. Fr. black.

Madroño - Madera muy fuerte y de uso frecuente.

San

5277. *Epidendrum Stamfordianum* Batem.

Orchidaceae

San Felix, on naues ~~and~~ skirts of cañons. Sepals yellow inside with purple dots & lines. Column greenish with pink tips. Wings of labellum white, terminal lobe yellow with fringed margin. Median line purple.5278. *Ocotea veraguensis* Mez.

Lauraceae

San Felix, in woods. A mid-sized tree, often is lated and then low with round crown.

Sigua canelo - Madera de construcción

5279. *Cordia gerascanthus* L.

Boraginaceae

San Felix, in woods. A mid-sized tree.

Laurel

5280 *Miconia pteropoda* Reuth.

December 24, 1911  
Melastomataceae

San Felix, outskirts of sacanas. A shrub 2-3m. high. Fl. white

5281

Cócla, cócala.

Leguminosae

San Felix, very common. A shrub or treelet. Fl. white.

5282. *Polystachya luteola* Klh.

Orchidaceae

San Felix, on *Brosenitia*.

5283. *Tobralia epiphytica* Schltr.

Orchidaceae

San Felix, on *Brosenitia*.

5284. *Maxillaria crassifolia* Rehb. f.

Orchidaceae

San Felix, on *Brosenitia*. Sepals yellow. Pet. yellow & dotted with purple. Column yellow.

5285. *Bulbophyllum sordidum* Lindl.

Orchidaceae

San Felix, on *Brosenitia*. Rachis claviform.

5286. *Loxanthia chiriquensis* Schltr. sp. nov.

Orchidaceae

San Felix, on *Brosenitia*. Fl. pale yellow.

5287. *Scaphyglottis brachiata* Lindl.

Orchidaceae

San Felix, on *Brosenitia*. Fl. pinkish white.

5288. *Eriodora*

Bipi

Euphorbiaceae

San Felix, outskirts of forest. Fl. white. A small tree.



December

24/1911.

5289. *Plumiera acutifolia* (Poir.) Apocynaceae  
Baracucho Blanca.

San Felix, in savanas. A small tree. Fl. snow white.

5290. ~~El~~ *Eschweilera verruculosa* Pittier Lecythidaceae  
Olleta

San Felix, the species most common in low wood, outside the  
tide belt.

3.

December

25, 1911.

5291. *Plethedia aspera* R. & P.

Meliaceae

Uti, in the hills above San Felix. A small tree. Fl. ♂, white.

5292. *Lisianthus Seemannii* (Griseb.) Kunth Gentianaceae

Cerro de Hato Jobo, Upper San Felix. Up to 2m. high. Common.  
Fl. pale yellow. Floribundus

5293. *Incideium cheirophorum* Rehb. f. Orchidaceae

Cerro de Hato Jobo, upper San Felix. Epiphytic. Fl. yellow.

5294. *Eupatorium solidaginoides* H. B. K. Compositae

Between

Between Hato Jobo & Cerro Vaca, in shady woods.

5295. *Viguiera sylvatica* Klatt.

Compositae

Between Hato Jobo & Cerro Vaca in clearings. Fl. white. Appa-  
rently rare.

5296. *Eupatorium daleoides* (D. C.) Hemsl.

Compositae

Cerro Vaca, in shady oak-forests. A treelet, up to 6m.  
high. Fl. white.

5297

December 25, 1911  
Compositae

Sabana de Cerro Vaca. <sup>Very</sup> Common. Fl. white.

5298. *Canavalia villosa* Benth.

Leguminosae

Sabana de Cerro Vaca. Outskirts of forest. Common. Fl. purple pale.

5299. *Calea Pittieri* Rob. and Greenm.

Compositae

Sabana de Cerro Vaca. Very abundant. Up. to 1m. Spreading like  
*Hypoxis* in lower region. Fl. deep yellow.

5300. *Eupatorium laevigatum* Lam.

Compositae

Sabana de Cerro Vaca. Common. Fl. white.

5301. *Borreria tenella* (H.B.K.) C. & S.

Rubiaceae

Sabana de Cerro Vaca. Fl. white.

5302

Compositae

Sabana de Cerro Vaca. Fl. purplish white

5303. *Eupatorium pycnocephalum* Less.

Compositae

Sabana de Cerro Vaca. Fl. purple.

5304 *Tibouchina*  
*bipenicillata* Cogn. Melastomat.

Sabana de Cerro Vaca. on the outskirts. A shrub, 2-3m high.  
Fl. pink.

5305. *Quercus chiriquensis* Boleae  
Mamecullo

Fagaceae

Cerro Vaca, forming forests. A large tree.



5306. *Tagetes microglossa* Benth.  
Ruda

5307

5308. *Muhlenbergia tenella* Trin.

5309

5310. *Machaerium Seemannii* Benth.

5311. *Cordia riparia* H. B. K.

5312. *Salvia*

5313. *Dysodia montana* A. Gray.

5314. *Jaegeria hirta* (Lag.) Less.

December 26, 1911

Compositae

Barro Vaca, around houses. Fl. golden yellow.

Filices

Barro Vaca, on wet rocks, near the top.

Graminae

Barro Vaca, in savana near the top.

Compositae

Barro Vaca, outskirts of forest, near top.

Leguminosae

Barro Vaca, outskirts of forest. A shrub.

Borraginaceae

Barro Vaca, in bushes. Fl. white.

Labiatae

Barro Vaca, in bushes. Lignose, 1.5-2" high. Fl. deep blue.

Compositae

Barro Vaca, in bushes. Fl. orange red.

Compositae

Barro Vaca, in bushes. Fl. yellow.

December

26, 1911.

5315. *Cestrum macrophyllum* Vent. Solanaceae Cerro Vaca, in forest. Cauliflorous. A small tree. Fl. purplish & yellow.
- 5316 Myrtaceae Cerro Vaca. A small tree, in bushes. Fl. white
- 5317 Urticaceae Cerro Vaca. A shrub in cool places along quebrada.
- 5318 *Salvia hyptoides* M. & G. Labiatae Cerro Vaca, in sabanas. Fl. purple.
5319. *Prideum molle* Bertol. Myrtaceae Cerro Vaca, in sabanas. Fl. white.
5320. *Pleurothallis longissima* Lindl. Orchidaceae Cerro Vaca. Epiphytic on *Quercus*, *Byrsinima*, etc. Fl. yellow.
- 5321 Orchidaceae Cerro Vaca, on *Quercus*. Fl. greenish yellow.
5322. *Oleandra panamensis* Maxon. n. sp. Filices Cerro Vaca, in oak forest; forming large colonies.
5323. *Cissampelos pareira* L. & *Haenkeana* Benth. Menispermaceae Cerro Vaca, in shady bushes. A vine.



December 6, 1911.

5324. *Piper geniculatum* Sw., forma d G. & B. Piperaceae

Cerro Vaca, in shady forest. A treelet.

5325. *Paspalum Beckii*

Graminae

Cerro Vaca in savanas.

5326

Filices

Cerro Vaca, in forest.

5327

Amarantaceae

Cerro Vaca, in bushes.

5328

~~Compositae~~  
Convolvulaceae

Cerro Vaca, outskirts of savanas. A small tree. Fl. white.

5329

Filices

Cerro Vaca, in oak woods.

5330. *Chaetochlamys panamensis* Lindau

Canthaceae

Cerro Vaca, in woods & shady bushes. Fl. purple.

5331. *Lasiacis swartziana* Hitchc.

Graminae

Cerro Vaca in woods.

5332. *Palicourea lanceolata* Arist. Lythraceae

Cerro Vaca, in woods.

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